

—SELF SUFFICIENCY AND PLANET CARE—

EARTH GARDEN

—FOR BUSH OR CITY ALTERNATIVES—

SPECIAL
20 YEAR
ANNIVERSARY
EDITION
OF EG

• Milford Track
wilderness walk

• Peter Garrett opens
Rainbow Power's
mudbrick factory

• Mudbrick: the
beautiful alternative

• Cover price
includes tree tax

• Natural Pest
Control

• Make your own
Indian moccasins

• JACKIE FRENCH'S
organic garden column

• Earth People Write

• Win EG's new 340 page
handbook — see page 2!



The Australian SELF-SUFFICIENCY HANDBOOK

A survival guide for the 21st century

From the makers of Earth Garden magazine

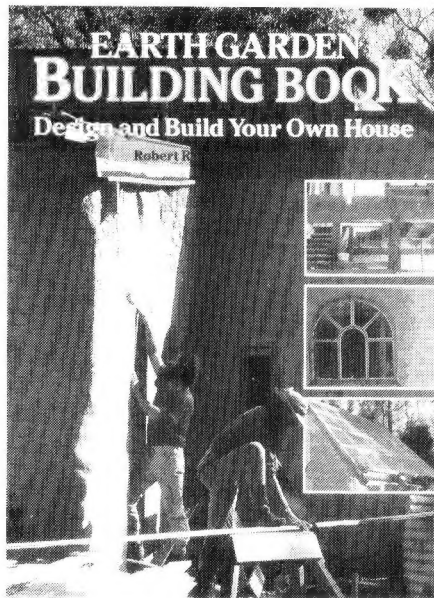


The editors of EARTH GARDEN magazine show you how to:

• build your own house • grow your own food • produce your own meat, fish,
honey and eggs • generate your own solar, wind or water power • make pottery,
tool leather, spin and weave wool, make soap and paper, and much more

Edited by Keith & Irene Smith & Alan Thomas

EARTH GARDEN BOOKS



EARTH GARDEN BUILDING BOOK

Design and build your own house

by Dr Robert Rich and Keith Smith

Penguin, 1991. New, revised edition. 315 pages, illustrated, large format paperback. \$29.95 posted, from Earth Garden.

This is the book many people have been waiting for since they first dreamed of building their own home from natural materials in harmony with their surroundings. It answers all the questions for Australian owner builders.

It's a 'practical book for dreamers' and it faces the difficult subjects square on. What the authors have done is to show how anyone of average intelligence and reasonable health can build their own home, and probably not end up with a 25 year mortgage at the end of it all.

"This book is intended to provide an antidote to the stereotyped Australian suburban sprawl of red brick houses with red tile roofs, set squarely in a rectangle of ground," said authors Bob Rich (who writes regularly for Earth Garden), and former Earth Garden publisher and editor, Keith Smith.

UNBLEACHED, \$15.00 EACH.



The ultimate fashion accessory!

New from Earth Garden. Comfortable, white 100% cotton T-shirts, with the EG logo and banner printed in dark green. Sizes 16 (small), 20 (medium) and 24 (large). \$14.00 plus \$1.00 postage.



The Earth Gardener's Companion
by Jackie French - \$8.95



HARD TIMES HANDBOOK

Keith and Irene Smith

A new, revised edition of The Hard Times Handbook is now available. As we enter the last decade of the Twentieth Century major changes in Australia's economic and social life are taking place. Unemployment, inflation and high interest rates continue to make times hard, no matter what our personal situation. The book includes over 180 practical household tips, over 150 recipes for cheap, healthy meals, how to make your own supplies, grow your own food and be prepared for emergencies. The German edition of this book sold like hotcakes!

Tree tax: This edition's tree tax has been donated to The Wilderness Society to pay for duplicating an anti-woodchipping community service announcement. The 'CHIP-CHIP' advertisement has been sent to every radio station in Australia. So listen for it, or ring up and request it — you helped pay for it!

EARTH GARDEN

Number 80

June — August 1992

Front Cover: experiencing wildmess is possible without destroying it. Bushwalkers, Karman Lippitt and Glenn Minshall celebrate reaching the top of the MacKinnon Pass on the Milford Track in New Zealand's South Island World Heritage rainforest. See page 32.
Inset: the new 'best of *Earth Garden*' book, *The Australian Self-Sufficiency Handbook* has just been released to coincide with *Earth Garden*'s 20th anniversary. See page two to win your own copy of our new book.

Back Cover: the house (or one of them!) that Peter built. Leading mudbrick architect and builder, Peter Lees, discusses the natural beauty of mudbrick on page 36.

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Founded by Keith & Irene Smith, 1972.

Publisher & Editor: Alan Thomas Gray
Assistant Editor: Greg Simmons
Advertising & Promotions Manager: Judith Gray
Organic Gardening Columnist: Jackie French
Illustrator: Bronwyn Halls
Secretary: Karen Sandow.

EARTH GARDEN is Australia's original journal of self sufficiency and alternatives. It is intended as a forum of practical ideas, shared knowledge, sources and as a guide to alternatives to unfulfilling consumerist lifestyles.

It's about putting a roof over your head, growing your own food organically, aiming for appropriate, renewable home energy systems and surviving — and thriving — in the city or the bush, with the inner changes which follow when you're in harmony with Nature.

Each issue we donate a portion of the cover price to a community group involved in tree planting or forest conservation projects to help balance the use of the partly recycled paper used for printing *Earth Garden*. We would like to see all publishers pay a tree tax.

Contributions to *Earth Garden* are welcome — sharing information and experiences with other readers strengthens the network of *Earth Gardeners*. Photos, illustrations and diagrams are important when sending us contributions. Remember subscribers are sustainers — for subscription details see page 56.

We welcome advertisements appropriate to the aims and ideals of *Earth Garden*, but reserve the right to refuse ads at our discretion. Write to us for display rates.

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Dear readers,

Welcome to the 80th edition of *Earth Garden*. We're pretty excited about this celebration edition and we hope you enjoy the range of articles, plus the thoughts of readers about 20 years of Earth Gardening. As I write this Greg, Judith and I are drawing to the end of a torrid week of burning the midnight oil (no wait on, that's on page 14). Actually, that's an understatement — we've been to bed between 4:00 and 5:30 am every night this week. We couldn't have a more pleasant office though. Greg, Judith, Karen and I all have our desks in a large sunny room at the back of our home. It looks out over the vegie patch and the forest, and this week we've been treated to the sight of many birds fluttering about grabbing worms. The kookaburras, rosellas, tiny blue wrens and flame robins, grey currawongs, white-winged choughs, magpies and parakeets are great entertainment.

Maybe the late nights explain what happened to Greg yesterday when he went to visit Peter Lees and see his incredible owner built homes (see the outside back cover, and Peter's article on page 36). As Greg reversed his Kombi to look for Peter and Irene's name on a roadside box, it fell down a metre-deep hole! The Kombi ended up with a wheel off the ground — about as useful as an upturned turtle. Ah, the dangers of working on *Earth Garden*! Lucky Peter was there to drag out the Kombi, but I'd love to have seen a photograph.

We think two decades of *Earth Garden* are a wonderful milestone. I certainly enjoy publishing *Earth Garden* even more than when I started some six years ago, after taking over (with much trepidation!) from Keith and Irene.

The first edition of *Earth Garden* I saw was EG 34 ("A Look At China"). I was like many readers who write to

us: amazed to discover that such a magazine existed in Australia, and delighted that I wasn't the only person who thought this way. I now knew that all the daydreams I'd had since reading John Seymour's *Fat Of The Land* a couple of years earlier weren't just pie in the sky. "Why haven't I ever seen this magazine before?" I wondered. (We hope even more people will start seeing *Earth Garden*. We hope our 'Fertilise Your *Earth Garden*' leaflet in the centre pages will encourage many readers to introduce new Earth Gardeners, by taking out gift subscriptions, or subscribing themselves.)

Earth Garden was very encouraging in those difficult days when I was working in a very "straight" job in journalism. I would wander down to the newsagent at lunchtime, fervently hoping the new edition would be out. Of course, I never dreamed that one day I would be lucky enough to help produce it! I suppose one of the fundamental strengths of *Earth Garden* and *Earth Gardeners* is that quietly showing by example, rather than preaching from above, brings lasting results and changes. I believe that 20 years of *Earth Garden* has proved this, and that *Earth Garden* philosophies are changing our world for the better. The article about the Rainbow Power Company's new factory opening underlines this approach.

One of the other vital strengths of *Earth Garden* is that readers and subscribers have always known that the magazine is *their* forum — one which readers have supported superbly with contributions, ideas, and requests for information from all parts of the continent. I thank you all for maintaining *Earth Garden*, and giving it vital reasons to continue for at least another 20 years. We hope you think this bumper edition is one worth keeping to show the grandchildren. We dedicate this edition, and 20 years of Earth Gardening to you — our readers.

Happy reading,

Alan

Win the new 340 page, 'best of' *Earth Garden* book

As part of our 20 year anniversary celebrations we're giving readers the chance to win a copy of *The Australian Self-Sufficiency Handbook*. We'll give away a copy of the book for the best *Earth Garden* hint sent to us by subscribers before the end of July.

So if you've developed a handy way of solving a problem in your back yard, or out on the farm, send it to us. We'll publish the best three and you could win this 340 page survival manual. Read *Jillaroo Farm Hints* on page 21 to get the idea, and page 56 for a review of the book. We have three copies of the book to give away, so get cracking! The competition is open to all new or existing *Earth Garden* subscribers — all the more reason to 'Fertilise Your *Earth Garden*' (see the centre pages), then send us your hint. Mail it to: EARTH GARDEN, RMB 427 Trentham, Victoria, 3458.



Earth People Write is an open forum. The views expressed in letters from readers do not necessarily reflect the opinions of Earth Garden. Letters are always welcome.

Turning full circle

Dear Alan & co,

I am one of the lucky people who has been subscribing since the beginning of *Earth Garden*. There has been some really interesting reading over the years! I remember all the doubts people had years ago when many regarded the alternative lifestyle movement as a fad which would pass in a few years. I guess there are still a few people who don't know it exists and a lot who have 'dropped out' and moved back into mainstream society. There are also an awful lot of us who have been touched by alternative philosophies directly or indirectly and maintained and developed those interests as the years have passed. In fact it is at last quite 'mainstream' to be 'alternative'. Where will it all end? Best wishes,

Louise Svenson, York, WA.

Letter from the Gulf Country

Dear Earth Garden,

Okay, okay, I give in! I've been reading *Earth Garden* now, off and on, for 20 years. I remember buying the first one! The time has come to subscribe. Now I've joined the "family" officially.

In 1972 I was a cadet lab technician working in a university environment and concerned with the environment. I swore off spray cans way back then as my bit for the ozone layer. I aspired to live in the bush where I'd spent my childhood and I read *LANDLINES* avidly, dreaming of a place . . . the place to call home.

While it never seemed to eventuate — there was the trip overseas, the home in the suburbs (and the second), the marriage, baby . . . I gave up reading *Earth Garden*, it just made me depressed. But I suppose it was all a learning experience. My mate and the baby and I packed up and headed west, north, south, more west, back north, then east again. We're nearly back where we started — geographically — but now we have our place. Our very own "lantana farm"! I wish it was 20 years ago — I was fitter then. There's so much work to do, I can't wait to get started.

I'm sending this letter from Karumba in The Gulf (far north Queensland) where my mate and I are working to pay the bank that we sold our souls to. Gardening here is a bit of a challenge but good practice. Karumba is about as different as you can get from Millaa Millaa. One is flat, brown and dry the other is bumpy, green and wet! Well, so much for the introductions, I'll go now. *Happy birthday!*

Trish, Millaa Millaa, Qld.

Dear Earth Garden,

Thanks for all the hard work you must all put in to making *Earth Garden* what it is. It's such a good feeling seeing it in the post box. You forget the busy day at work, how hot and humid the weather is, and how dragged out you feel. It's off home for a cuppa and a good read. So, many thanks *Earth Garden* people. I'm renewing my subscription, and would also like one for my daughter who lives in Ballarat. New house, clay

soil, lovely roses, but needs Jackie's help for a vegie garden. Thanks and all the best for '92.

Pam South, Katherine, NT.

Subscription time

Dear Earth Garden people,

Thanks for your informative, inspiring and entertaining magazine. My wife and I have been reading it on and off for quite some time (usually borrowed from the library) so now we thought it's about time to buy our own. Please sign us up for a three year sub. Thanks, **Mark Jacobs, Ringwood, Vic.**

The Healthy House Cow

Dear Earth Garden,

Thank you for a great magazine. I would like to say how much I have enjoyed reading *The Healthy House Cow* book. It is invaluable to me and I'm sure anyone who has a cow or is thinking about getting one, should include this book in their library. Once again thanks for a great magazine and some great books. Your sincerely, **Jenny Robertson, Giddegannup Springs, WA.**

The Healthy House Cow is available for \$18 posted from Earth Garden. See page 64 for ordering details. —Alan.

New Zealand Earth Gardener arriving

Dear Earth Garden folk,

Like most *Earth Garden* readers the first part I turn to is this open forum. I am a 64 year old active single fellow with a

pastime of bicycle touring. I hope to move to Australia in 1992 or 1993 to retire. I would enjoy corresponding with others from New Zealand, or anywhere else, who have already made the shift. I am keen to hear how to minimise the freight costs. Also, where councils may be more understanding of someone wanting to live permanently in a caravan or the likes on a small freehold area. I would appreciate hearing of frost free localities too, where a few acres can be purchased for a reasonable price. All responses answered.

Ken Everett, PO Box 33, Shannon, Horowhenua, New Zealand.

Dear Earth Garden,

As always, it's heartening to see there are still some sane people left on this planet who are not sucked in and brain washed by the media machine and consumerist lifestyle. Keep up the excellent work and keep the flame alive! Best wishes,
Angie Lensink, Glendalough, WA.

Home education advice

Dear Alan,

Katherine Adam's letter on home education in *Earth Garden 77* has prompted me to write. To the best of my knowledge, home education is quite legal in New South Wales. You can educate your children at home in New South Wales without the piece of paper declaring you to be a 'qualified' teacher. At least, you could in 1989 when I inquired. Exemptions in New South Wales were granted at the discretion of the interviewing officer from the Department of Education.

Things, however, are different in Queensland, so I'm writing to warn fellow Queenslanders who, like me, wish to educate their own children. In Queensland you can teach your own children at home if you have a piece of paper declaring you to be 'qualified'. If you aren't 'qualified' you must hire someone who is (prohibitively expensive).

If you are a qualified teacher living in Queensland, you must write to the Minister (I'm not sure whether Federal

or State) and request an exemption. Allow at least a year. Apparently, the Minister takes his time. If you are rich enough to hire a teacher, you must also write and request an exemption. One advantage that Queensland home educators have over the system is the right to set their own curriculum. They also have the right to the curriculum of the rural students' external correspondence school.

Another worry about Queensland's education system is that there seem to be moves afoot to make pre-school compulsory. While I have nothing against pre-school *per se*, I do think compulsory socialisation at an earlier age is a violation of civil rights. Keep guarding the guards,

Kathy Heyne, Goondi Bend, Qld.

Bombing ants and compost toilets

Dear Earth Garden,

I have a possible solution for Di Skinner and Glen Smith's ant problem (*Earth Garden 77*). By accident I found that 'toilet bombs' (those little yellow bombs you see in toilets and urinals) do the trick.

We have a hall that's only used about once a month so the loos and the rest of the place get stuffy. I was putting a few bombs around when I spotted a line of ants coming along the window ledge down into the hand basin to get into the water. Without thinking I put a couple of bombs on the ledge near the open window and the ants went mad. When I came back later there was not one ant. The same thing happened in the kitchen. We have found cockroaches don't like it either. Where ant tracks go up the wall run a bomb along like a crayon crossing their path and you will be amazed with what happens.

Regarding Judy Quinlan's letter in *Earth Garden 77* about composting toilets, there can be very nasty pathogen problems with them if not monitored properly. I would suggest that you write to Dr Bruce Walker of the Centre for Appropriate Technology, c/- Alice Springs College of TAFE, Alice Springs, NT, 0870, and he can give you advice.

They have developed a ventilated improved pit, which is successful out in the communities. The Northern Territory Parks and Wildlife Service have built similar units to this design at the tourist spots and believe it or not there are no flies or odour. Hoping that this information may help. Keep up the good work *Earth Garden*—it's a mighty magazine. Yours for the Earth,

Kevin Hollioake, Alice Springs, NT.

Dear Alan & Earth Garden people,

Great reading in *Earth Garden* — keep it up! More biodynamics please. We love *The Hard Times Handbook* — it keeps Steve bush and out of my hair (but only on weekends).

Iris and Steve Smetak (Cottonon Bag Co), Tecoma, Vic.

Brisbane organic growers

Dear Earth Garden,

Thanks for your great magazine. It is very useful for organic gardening on our five acre property in the beautiful Samford Valley, 30 minutes west of Brisbane. I would recommend your Queensland readers join the Brisbane Organic Growers Inc (PO Box 236, Lutwyche, Qld, 4030). They hold monthly meetings and outings, and have a regular newsletter. Membership is only \$12 a year. Best wishes,
Louise Willard, Samford, Qld.

EG dog soap popular

Dear Alan,

My husband has been buying *Earth Garden* for several years, and I was delighted to see the advertisement for natural dog soap in *Earth Garden 79*. Fleas have been worrying our two Aussie terrier dogs for the past few weeks and I'm not keen on using a chemical wash on them every week. I look forward to receiving the order and I'm sure the dogs will appreciate it! Keep up the great magazine. Yours faithfully,
Karel Cripps, Elderslie, NSW.

Dear Karel,

For extra flea protection, I recommend that you add three drops of lavender oil when rinsing your dog. The

lavender oil and dog soap together are very effective, although Alan thinks the dog smells like an old chest of drawers. We have been swamped with orders for the soap but have plenty of stocks.

—Judith.

Northern Territory organic orchard

Dear Earth Garden people,

Thank you for a very informative and inspirational magazine. We are in the process of establishing a mango and tropical fruit orchard at Humpty Doo in the Northern Territory. We are going to be totally organic and were wondering if there are any organisations or associations up here in the Top End that we can join? Is there a process to comply with, whereby our produce can be marketed as organically grown? Also, we would love to hear from anyone with ideas or methods for organic fertilising and pest control (especially termites) to suit our tropical conditions. Regards to all,

Dave and Maxine, PO Box 3476, Darwin NT, 0801.

Small-farm dairy equipment supplier!

Dear Earth Garden,

I am writing about the inquiry in *Earth Garden* 78 regarding small milk separators. I have been importing these units from the UK, both hand and electric, along with butter and cheese-making equipment. I also import small-farm, mobile milking and dairy equipment for cows and goats. Should any readers require further information on any small-farm dairy equipment please contact me. Regards,
John Payne, PO Box 561, Gosford, 2250, NSW.

Glass lamp chimneys?

Dear Earth Gardeners,

What a relief! Autumn is here at last. We've had a lovely cool spell after long hot weather. I've been trying to keep ahead of the weeds and planting the vegies, but it keeps raining, so I'm now sitting on the verandah, a cup of tea

at the ready together with the autumn *Earth Garden* which arrived in the post yesterday. It's hard to get a look at it in our house. As soon as it comes, it disappears and I have to wait until school and work beckon the rest of the family to snatch a few lovely hours read.

Can anyone out there help me locate some glass chimneys for the old table lamps? I was given some lamps but haven't been able to find a supplier for the glasses. Love to all Earth Gardeners.

Helen and John Flowers and family, PO Box 151, Northam, WA, 6401.

Drakes and social security

Hello people,

If anyone knows where we can purchase a Khaki Campbell drake could you let us know please? Is there anyone out there who can explain social security to us oldies as everyone seems to want to know your business, but isn't interested or helpful to the general public.
T Newnham, PO Box 82, Mt Garnet, Qld, 4872.

Unbleached T-shirts, and plastic bags

Dear people,

Please find enclosed a cheque for an *Earth Garden* T-shirt. Perhaps they could be made of unbleached cotton, for the future, in every way. Excessive use of plastic bags still breaks my heart. I pick up dozens out of Lake Macquarie and wherever I am. Supermarket shoppers don't seem to think of the dolphins, fish and birds which suffer by choking and bowel obstructions from the things.

I was interested to see a comment in *Earth Garden* 78 from Maxine Cuzza about using recycled plastic carry bags in the pre-owned clothes shop. I wonder does she mean the ones supposedly made from 'recycled' plastic (I understand that the off-cuts from the handle holes are what are used) or do customers and friends supply her with pre-used bags? We shoppers have the right to refuse packaging. I am obsessed with plastic and cannot believe that the overuse of plastic packaging is *still legal*. Each one

of us must reject plastic packaging. We must.

I went to my first woodchip ship arrival with The Wilderness Society here in Newcastle recently. It was an amazing experience. Yours sincerely,
Pauline McEwen, Croudace Bay, NSW.

Dear Pauline,

You will be pleased to know that from now on, all Earth Garden T-shirts are being made from unbleached cotton.

The Newcastle branch of The Wilderness Society has been doing a superb job raising public awareness of the stupidity of exporting our native forests as woodchips to make Japanese hamburger packets. The campaign to end export woodchipping has become the major focus of The Wilderness Society, now that resource security legislation has been successfully defeated. This year alone, two million trees will be woodchipped, yet the industry only employs 804 Australians. "Woodchip free by '93" is the aim of The Wilderness Society and you can join by ringing toll free on (008) 030 641.

—Alan.

Potato yeast recipe?

Dear Alan,

Thanks for a great magazine. I've always found *Earth People Write* interesting and now I'm hoping it can help me. Some years back I had a recipe for making potato yeast but I've now lost it. Can anyone help?

Leigh Gray, RMB 2395, Newstead Rd, Franklindford, 3461.

The Gypsy Cookbook anyone?

Dear fellow Earth Gardeners,

Hi. I'm currently looking for a book advertised in *Earth Garden* ten years ago! It was called *The Gypsy Cookbook* by Rosemary Lee Wright, published by Wentworth Books of Sydney.

The collector in me isn't going to rest until I get my hands on it. Apparently it's out of print but if anyone either

knows where I could get it, or has a copy they would sell, could they please contact me? Thanks a lot.

Helene, c/- 11 Tempest St, Chaple Hill, Brisbane, Qld.

Septic tank methane digesters?

Dear Alan,

Earth Garden is fantastic and it has influenced our lives since we started reading it in 1989. I would like some information on methane gas. We are building a solar and wind powered home at Wensleydale in Victoria. Has anyone successfully collected or harnessed methane from their septic system for domestic use?

Mr & Mrs Somers, Meaby St, Jan Juc, Vic, 3228.

There have been numerous articles on methane digesters in previous editions of Earth Garden. We would also like to hear from people using methane digesters from septic systems to power their homes.

—Alan.

More natural flea control

Dear Earth Garden readers,

Last year through word-of-mouth we were introduced to 'Orange Medic', a safe cure for head lice in children, body lice, fleas, ticks and all insect pests affecting humans and animals. We had tried everything, finally resorting to handpicking the fleas from our silky cross terrier, catching up to 12 of the beasties each day. It was impossible to control the fleas because each morning and night our silky took great pride in his walks with his master, greeting the ten dogs in the street where no gates keep them inside fences.

Trying Orange Medic after his wash was miraculous for us and our dog. Orange Medic is guaranteed free from dangerous synthetic chemicals, contains the oil from orange peels and all ingredients are low hazard and biodegradable. You can buy it from chemists, some hardware shops or direct from Emerald Forest Pty Ltd, PO Box

1653, Townsville, 4810, for about \$8. It lasts a very long time.

I hope this can help *Earth Garden* readers as so many of your articles and letters have helped me in the past. Keep up the excellent job you are doing for those who see our planet worthy of our care. Sincerely,

Roma R Roe, Townsville, Qld.

Permaculture village plans

Dear friends,

I want to contact people interested in buying land to develop a permaculture village. Each shareholder will have individual title to a one acre home site, and an undivided share in the common land, to be developed along permaculture lines. This project is a way for people to get off the 9-5 treadmill and become involved with a permaculture project and develop a right livelihood.

I was brought up on a subsistence farm in Yugoslavia and now I'm also a trainee permaculture designer with experience in low cost, passive-solar owner-building, food growing and storage, and water supply and storage systems. I also have knowledge of (low tech solar, wind, water and steam) power generating systems, as well as woodworking, metal working, blacksmithing, metal casting and tool making. If you are interested please write to me or ring. Phone (057) 861 482 between 7 and 9 pm.

Bill Beke, PO Box 9, Kinglake, Vic, 3763.

How Green is your conscience?

Dear sir,

If you don't agree with Janet Heywood's letter ("Suburban Earth Gardening Only?") in *Earth Garden* 79 you shouldn't be in the position you are, as editor and publisher of *Earth Garden*!

This lady (*sic*) expounds on some basic truths regarding the environment. I left Australia's second largest city for exactly the reasons you would empathise with in March, 1986. Yet having mostly lived in small rural communities ever since I have found more arrogance, pig headedness and complete ignorance

about environmental matters in these communities than when I visit major centres (for example), where most people seem more environmentally aware. Maybe all the weaker folk living city-wise (yuppies probably) move away to the country with their materialistic, selfish ideals and bugger-up our native countryside!

The lady (*sic*) is right when she says these well off idealists should keep their well-heeled bums where they are and put some *effort* into *less* consumerism and more environmental living. Please agree to expound your thoughts on this. We are all wondering about where you are coming from! Yours sincerely,
Hank Les, Bridgetown, WA.

Phew! I can see the ink scorching off the page from here. It is not easy to have your "Green credentials" attacked and then be expected to present them like a justification. So I will not do that here, except to say that I have been actively involved in various environmental campaigns since I was 15 years old in 1977.

I don't know that I shouldn't be editor and publisher of *Earth Garden* simply because I disagree with some of the thoughts in an *Earth People Write* letter. I also don't know why it isn't obvious "where I'm coming from", based on the past six years of articles I've published in *Earth Garden*. Anyway, perhaps before justifying myself I can correct a misconception, and offer an example.

An horrendous misconception is that Earth Gardeners must live in the bush: wrong, wrong, wrong. Many longtime readers live in cities, and lead very satisfying, simple, low-impact lifestyles. Many city-based Earth Gardeners are also active environmental campaigners, and I'm sure, for example, that if Friends Of the Earth thought *Earth Garden* was somehow incompatible with city-based conservation, they would not display the magazine prominently in their Melbourne bookshop.

I now know that to be an effective environmentalist it is not necessary to live in an inner suburban hovel, chain smoking and cappuccino drinking with

worry about the future of the planet. The ultimate proof of this our own *Jillaroo Farm Hints* Editor, Jill Redwood. Jill is one of the most effective environmental campaigners in Australia, even though she lives six or more hours from Melbourne or Sydney. I firmly believe that the revitalising energies of the bush can make campaigners more effective and creative. Jill is also Editor of the pro-environmental *Potoroo Review*, the best community newsletter I've encountered in Australia, and that's just a tiny piece of her work.

I am yet to be convinced that living in a big city, like Sydney, which flushes its toilet wastes into the Pacific Ocean, has less environmental impact than living on a larger country town or bush block, using a septic tank. How can we be better off commuting for a couple of hours every day, burning up fossil fuels, than creating sustainable employment in regional centres? How can it be better for Melburnians to pump more sulphur dioxide into the Yallourn Valley from the coal burnt to power and heat the city, than to use a renewable source of firewood, collected nearby? And on what basis is it preferable to build huge water supply dams, with massive plumbing and pumping stations, than simply having a fluoride-free rainwater tank on every roof?

A book I read in 1979 called *The Politics Of Self Sufficiency* taught me that when we continually increase housing densities, and build bigger and bigger cities, we consume finite resources at an *exponential* rate rather than the sustainable *arithmetic* rate of small-scale communities.

I know of no *Earth Garden* readers who would support clearing oldgrowth forests to build their homes. However, when I see the chemical-saturated broad-acre farms of yesteryear all around me, totally denuded of trees and soil-sustaining vegetation, and compare this with land being resuscitated by hard-working Earth Gardeners, it's not hard to see what's better for the environment.

If we decentralise our population centres we will create less demand for services which have a large scale

environmental impact. Perhaps we should remember that, as an animal species, humans have only lived in cities for a tiny fraction of their half a million years or so on Earth.

In the past 50 years Australia has seen a continuing drain of people from the country to the big cities, while simultaneously embracing voracious, high-consumption lifestyles. We have much to relearn from the old days and old-time bush lore. *Earth Garden* has always encouraged readers to take the good things from the old days, and apply them today (*The Settler's Guide*, Edited by *Earth Garden* co-founder, Keith Smith, is an example).

And if we are to rescue our country and our planet we must learn from Aboriginal people. This Aboriginal knowledge of "keeping the land alive" does not come from the city. I firmly believe that one of *Earth Garden's* enduring strengths is self sufficiency and planet care, for bush or city alternatives. Haven't I heard that somewhere before?

—Alan.

EG fans on Fantail Ridge

Dear Earth People,

I have just bought and read *Earth Garden* 79 and felt inspired by what I discovered so I had to write and let you know! This year was my thirtieth on this planet and, of course, I did some assessing of what I had done and where I had been. However, just *this* year I have moved onto 30 beautiful acres and, for the very first time (with a *lot* of help from my best friend!) have built a humpy, erected a roof, built a 'dunny', planted vegies and fruit and nut trees and Australian natives. I have watched wallabies in the morning, built a tankstand for our rainwater supply and watched the first drops hit the bottom, spent wonderful hours watching the birdlife, listened out for the postie wondering if he'll deliver anything in our flowery letterbox . . . life has just begun! Well, there have been a couple of years of planning and discussing and now here we are!

Anyway, back to the magazine: I really enjoyed the articles on the tip, and

Jackie French's column, as well as the article about the Alternative Technology Centre in Wales. We spent last year in Great Britain and Europe and visited the Centre, which we found a great inspiration. Wouldn't it be good to see something like that here in Australia? Also, do any *Earth Garden* readers around Taree or Manning know of information on Australian native plants found in this area? Happy anniversary *Earth Garden*! Love and peace to all, **Jane & Tony, Fantail Ridge, Juhles Mountain Rd, Moorland, NSW.**

Low pressure sprinklers?

Dear Earth Garden,

In *Earth Garden* 78, an article by Geoff Milton, "Bushfire house sprinklers: they work", mentioned Senniger Wobbler low pressure sprinklers. We are interested in information, availability and price of the above sprinklers.

We are trying to get low pressure sprinklers which deliver large droplets (to minimise evaporation and spray drift) in an even pattern of coverage. So far all the sprinklers we have tried give a fine spray and poor pattern of wetting due to dry spots. Any information on commercial products or DIY systems would be appreciated. Yours sincerely, **Steve Margaritis, PO Box 362, Margaret River, WA, 6285.**

LAND LINES reply

Dear Earth Garden,

Thank you for your informative articles as well as the very effective network between Earth Gardeners. I would like to contact a woman named Vicki Murphy from Victoria who telephoned me yesterday regarding my LAND LINES advertisement in *Earth Garden* 79 (Weetah, Tasmania). I would like us to discuss her offer further. Maybe, if she reads this she could contact me *please*! Thank you. For the Earth, **Alice Hungerford, 32 Putty Rd, Colo, NSW, 2756.**

**•Earth People Write
continues on page 54**

20 Years of Earth Garden

by Keith & Irene Smith

Epping, New South Wales.

IT'S 20 years since we sat down at a friend's kitchen table in Melbourne to put together the first issue of *Earth Garden*. We were married in January 1972, quit our jobs, and set out to see Australia in an old campervan called Morrie. The first 1,000 copies were cranked out on another friend's printing press in a cellar in Richmond. *Earth Garden* was born!

We honestly thought that would be it. Never in our wildest dreams could we have imagined the success that *Earth Garden* would have. It prospered and grew from these small beginnings, helped and influenced a lot of people, and is still going strong.

The significant anniversary will be marked by the issue of *The Australian Self-Sufficiency Handbook*, edited by ourselves and Alan, and published by Viking O'Neil. It's an anthology of the very best articles from the first 77 issues of *Earth Garden*, with a focus on basic, practical information.*

Where are we now?

As you read this we'll be somewhere in Arizona or New Mexico looking at mudbrick pueblos and buildings (such as the 17th Century adobe Governor's Palace at Santa Fe), trekking the Grand Canyon, camping in Navajo reservations and looking into American Indian culture. We need the break. After working on *The Australian Self-Sufficiency Handbook*, we've written a follow-up to *Hard Times Handbook* (more later) and Keith has revised *The Settler's Guide*.*

Most importantly for Keith, after four years of writing and research, his biography *King Bungaree*, the life story of a Broken Bay Aborigine who died in 1830, will be published by Kangaroo Press later this year.

Our daughter Melissa — that little baby you may remember from the photo in EG 10 — is now working in the onion fields in the Negev Desert at Kibbutz Lotan near Eliat in Israel. Irene and her Mum helped Melissa celebrate her eighteenth birthday in Jerusalem at the end of May. The



Peace and love from Keith & Irene, pictured here recently with their daughter, Melissa — “that little baby you may remember from the photo in EG 10”.

photo shows Melissa with her proud parents on the day of her Year 12 formal last year. She plans to study Arts Psychology at Macquarie University. Ah, life in the suburbs! We still have our vegie garden and it's been a great year for tomatoes in Sydney.

It's great to see *Earth Garden* in such good hands. May it continue to flourish, through 2002, 2012 and onward!

Peace & love,
Keith & Irene Smith.

*See the review on page 56 of this edition.

Sister Helen

Dondingalong, New South Wales.

THE first copy of *Earth Garden* I read was number 3, which I came across by accident while browsing in a shop in Glebe, Sydney. I was greatly excited and read it avidly. I wanted to say “Yes” to so many things other people wrote in this rather ‘avant-garde’ magazine. It was attempting to answer the questions in my own mind, questions I wanted to ask but had not.

I was living in a house in Glebe and immediately

began to make my own wholemeal bread. I bought a 25 kg bag of flour from a mill in Pymont. As we had no car we pushed and pulled it home in a shopping trolley. Coming up the steep hill on Pymont Bridge Road we no doubt shortened the life of the trolley and certainly burned up some of our own energy! The other sisters were delighted with the bread and also began to make it.

At the time some of our sisters were living in the bush on Guadalcanal in the Solomon Islands. They were in houses made from bamboo and sago palm leaves and were hoping to acquire some milking goats. They already had

20 Years of Earth Garden

fowls and a large vegetable garden. Our copy of *Earth Garden* was posted to them. They found it most helpful and were soon managing a thriving goat herd and helping other people living nearby to improve the health of their goats and increase the milk production.

Somewhat daringly, I wrote my first letter to *Earth Garden* which was printed in issue 7. Then in 1978, when three other sisters and myself began our present house on 44 acres about 16 km out of Kempsey, *Earth Garden* became almost compulsory reading. For many of our present buildings, the solar equipment, the compost toilet, for our knowledge of gardening and how we care for our fowls, ducks, cows and donkeys we owe much to the invaluable information we gleaned from *Earth Garden*. The heady day when we sat down to a meal completely made up of food grown in our garden or produced by our hens was one of happy achievement. The meal even tasted good too!

The way of life we have built up here and shared with our guests has been a very satisfying one and we are still learning more and gaining more respect and admiration for the way Nature works and fits together. Thank you for the invitation to write this small contribution and reflection, and



may *Earth Garden* continue to encourage men and women to appreciate all that goes into truly living.

Orphans and a large loving family

by Bob Rich

Healesville, Victoria.

TWENTY years ago my wife Jolanda and I had just bought our first house (for \$9,000!), where we lived with our two young children. I was an ambitious academic but bored with my PhD research, which was complete and only needed writing-up.

Then . . .

One day I put on the toaster — there was a flash and the electricity went off. I didn't know what to do, so I got the bloke from next door. He taught me the mysteries of fuses and fuse wire, and fished out the teaspoon one of the children had dropped inside the toaster. On another occasion friends gave us a small tree, so I went next door to borrow a spade. I had a lot of trouble breaking the soil because I was barefoot and couldn't push the spade in. My friend took the spade from me and dug the hole without using his shod feet. Also, during the visit of one of my brothers-in-law I was attempting to hammer in some nails. The nails kept bending. "Bob," he sighed, "you're the most impractical person I know!"

The first steps

In 1972 most people thought the world was a great place to be. "You can't stop progress!" was the call. But I

saw plenty of evidence of troubles to come: the end to unlimited economic growth and the consequences for a society hooked on it; environmental degradation; the breakdown of institutions such as the family; a rise in violence, crime and drug use and addiction; new diseases; increased hatred between ethnic or religious groups pressed closer and closer together by a crowded world; and the ever-widening gap between the rich and the poor. All these problems are symptoms of the cancer of human economic and population growth.

Jolanda and I wanted to *do* something, however small. The trouble was that everyone we knew thought we were crazy — our thinking was so different from theirs. So we figured that we would, at least, improve our own existence.

I bought an English book on no dig, organic gardening by Shewell-Cooper (I couldn't find an Australian book at that time). By faithfully following the book's advice I managed to grow our vegie needs all through the year. This was my first success at anything practical. I looked for more learning experiences, like talking to and watching competent people, and reading books.

Contact

One day, Jolanda brought home volume 1, number 1 of a magazine called *Earth Garden*. We both read it from cover to cover and felt like a pair of orphans who had discovered a large and loving family of cousins, uncles and

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aunts. We realised that we were not the only ones out of step!

We felt that to change the world we needed to be part of a community of like-minded people. For three years we tried to interest others in forming such a community, but we didn't have the skills, contacts or money. Then we heard of a community set up to focus on conservation, education and co-operation — exactly our concerns. The group, called Moora Moora, had bought land near Healesville, Victoria. We joined them about a year later in 1976.*

Building your own house was the big thing at Moora Moora. I became interested and so got a job as research scientist at the CSIRO Division of Building Research. At weekends and holidays I helped others to build their houses. Much was done through 'work groups' — several families sharing work on each other's building projects. This was more efficient, more fun and a great way to learn new skills.

By 1979, I had enough knowledge to answer enquiries to the CSIRO about mudbricks. I could now use a variety of tools and people sought me out for advice on building matters. I took a year's leave without pay to start building our house at Moora Moora. After a couple of months, I knew I'd never go back to full-time, office based work. I enjoyed being in contact with Nature and using my body in meaningful, heavy physical work. I enjoyed constantly learning new skills, and the more natural lifestyle of satisfying our needs directly instead of through earning money.

Since then, we have lived below the official 'poverty line' and have been better for it. Too much money is like too much food — it can jade the appetite and spoil your health. The right amount is that which allows you to get what you need by striving for it, and by carefully considering every expenditure.

I started writing for *Earth Garden* in 1980. In 1984 Keith Smith and I wrote letters to each other (which crossed in the mail), suggesting that we co-operate in writing a book about building. The result, *The Earth Garden Building Book* was published in 1987. The third edition is now selling well.



Bob Rich (left) overseeing students in his earth building course at Melbourne's Holmesglen College of TAFE.

Bob runs his 10 week part-time course four times per year. For details of course times, contact the College on (03) 564 1546, or write to: Holmesglen College of TAFE, PO Box 42, Chadstone, Victoria, 3148.

Now

I have been teaching a course at Holmesglen College of TAFE on building with earth since 1985. I have finally accepted others' evaluation of me as a competent person with a variety of skills. I can spin wool, carve wood, turn my hand to virtually any job in the house or building site, grow food or even write a poem. If someone else can do it, I can learn it. And so can you, if you try.

Editor's note: The Moora Moora Co-operative still has openings for new members. There are Open Days on the first Sunday of each month, starting at 1 pm. Ring (059) 62 4104 for directions.

Changing with the pace

by Stephen Ingrouille

North Melbourne, Victoria.

TWENTY years of *Earth Garden*! Congratulations to us all! *Earth Garden* has survived because it was wanted and needed. It still is. The magazine has been like a train on a long track. People have been getting on and off, but the train has stayed on the track. It has travelled a long way and has been used by many to reach their desired

destinations. *Earth Garden* has helped to make the journey a pleasure and, without its influence, many trips would never have been made. *Earth Garden* has been a profound publication in the lives of many people over the past 20 years.

My contact with EG goes back to issue number four and in a way, started with a bee that landed on a window sill of my parents' home. After this chance meeting, I took up beekeeping (being careful to pacify the neighbours with the occasional free jar of honey). Then through a beekeeping friend, I was contacted by ABC TV looking for some bee

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film footage. After the program was aired, Keith and Irene Smith made contact, and so my relationship with *Earth Garden* began. (That single bee, which probably only lived another two weeks, has helped me survive ever since—I still keep bees, and derive a portion of my income from the sale of beekeeping supplies).

Those early issues of EG were not quite up to the same professional standard we expect today with modern production and printing technology. However I remember the effect the first issue had on me and I still see people reacting the same way when they pick up their first copy of the magazine.

When I left school I joined the ABC (perhaps again thanks to that little bee), and one of my life's aims was to earn enough money to buy a farm and become as self sufficient as possible.

I moved from Sydney to Melbourne and became involved with Friends Of the Earth (FOE). These were hectic days because we were trying to prevent the mining of uranium (one of our protests was to live in Melbourne's City Square—in a brass bed), and trying to make people aware of the dangers of nuclear power. It almost seems *passé* now, but in those days nuclear power was promoted as being "too cheap to meter". There were plans to build Australia's first commercial nuclear power station, which we believed wasn't a good idea!

In about 1977, it was decided at FOE that instead of just being anti-uranium, the group needed to be actively pro-solar. I advertised in *The Age* in Melbourne and on the city's then embryonic community radio station, 3CR. We booked a hall, to hold about 40 people, for a public meeting to discuss what could be done to promote alternative technology. When I arrived there was quite a crowd standing around outside. The hall was packed, but fortunately there was a much larger hall available which we soon filled.

At this meeting the Alternative Technology Co-operative (ATC), today called the Alternative Technology Association (ATA), was born. Regular meetings were planned, as well as a newsletter, a magazine, a workshop and a retail outlet for the goods that the members produced. It was agreed that the ATC could use the facilities of FOE but would be set up as an independent group.

At the meetings, as well as planning other projects, we also sold copies of *Earth Garden*. The ATA still has regular meetings and has an alternative technology workshop at the CERES site in Brunswick in Melbourne.

The Association publishes its own magazine *Soft Technology* and is involved in many other projects promoting appropriate technology. The retail outlet was established in 1978 and still exists as 'Going Solar'. It continues to sell items produced by people who were at that first public meeting, and it is still committed to retailing quality, environment friendly products.

How we survived with very little business training

and almost no capital is still a mystery. Imagine, in those days, asking a bank manager for capital to set up a 'self sufficiency supplies' business.

We thought we had pioneered a new concept in retailing—a one stop self sufficiency shop, but soon found that the first such shop was 'Self Sufficiency Supplies' in Kempsey, New South Wales. There was also 'Alternatives' in Brisbane and a fourth (now defunct) in northern New South Wales.

Proprietors of these four shops met and the somewhat exclusive Appropriate Technology Retailers' Association of Australia (ATRAA) was formed. 'Village Alternatives' in Adelaide (now called Natural Technology Systems) also soon became a member. The products members sold included solar/wind/hydro electrical equipment, solar hot water systems, wood stoves, water pumps, mudbrick equipment, non-toxic paint, gas fridges, food producing equipment, related books—and of course, how could I forget beekeeping equipment?

With the proliferation of solar shops now, ATRAA has, to some extent, been hijacked and much of our meeting time is taken up with electrical products, rather than the initial, broad range of self sufficiency products. However, through ATRAA, retailers of competitive solar brands can meet and share information.

The Association now meets annually in a different State during the first week of August. It is interesting to see how much notice the rest of the solar industry now takes of this powerful group.

As an original ATRAA member, I feel like one of the industry grandfathers. Once we had most of the market to ourselves, and now there are hundreds of solar and 'Green' shops.

Of course, this is a measure of the success of groups like ATA and ATRAA and of the value of the constant support of a magazine like *Earth Garden*. Products that were once unusual, are now commonplace.

Solar powered systems are often promoted and subsidised by government organisations. Mudbrick houses and the use of insulation are common; and non-toxic paint is gaining popularity over the regular, unfriendly chemical products.

Our self sufficiency train has come a long way. We may not be totally self sufficient (if ever that was the aim), but we are building more energy-efficient houses and vehicles. We are saving our seeds and attempting to save our environment, and we are eating healthier, chemical-free foods. There's a long way to go but we're on the right track.

And myself—I'm still enjoying 'Going Solar'. As well as retail, we now wholesale and supply many of the new shops with new products, as well as the old favourites. And, of course, I'm still selling lots of beekeeping equipment!

Thanks to that little bee, and thanks to *Earth Garden*. Happy birthday!

20 Years of Earth Garden

by Vic Calthorpe

Mt Glorious, Queensland.

I READ Alan's remarks in *Dear Readers* in EG 79, regarding the magazine's 20th birthday and those readers who have every copy since the first in 1972. I started to think about what life was like then. What was I doing and thinking? How did I find *Earth Garden* useful?

Well, I too have every copy. There they sit on the top shelf with their pages going yellow at the edges (a bit like me!), but they are still useful and one of my prized possessions.

In 1972 I owned a butcher shop. Next door was a general store/newsagent's where I saw the first edition of *Earth Garden*. What a strange looking magazine, I thought, with stories of 'vegetarians' and 'communities' — these are the sort of people who overthrow governments.

As each issue came out, I would read and reread the 'escape' stories and wish that I could be doing all those exciting things. Those early editions concentrated on one subject, be it goats, bees, solar power or whatever, and it was not until EG 8 that stories from people who had made the break began to appear. I remember wonderful stories like 'By truck to Tassie' by Gael Knepper Douglas about her two month return trip from Nimbin in New South Wales to Tasmania. She described meeting old friends on the track as "a necklace of jewels". And there was Warren and Kay Earl's 'Bees, goats and 3/4 acre' — a story which set my earthy pulses racing.

I managed to restrain myself only until EG 9, when a simple down to earth story appeared called 'Working on a dream' by Marty and Dulcie Jarvis. In those early days of self sufficiency they showed how it could be done on a shoestring. This did the trick. (To top it all, on the back page



of the issue was a picture of a youthful Keith Smith resplendent in an original *Earth Garden* T-shirt—only \$3 then.) In the years that followed I escaped into the bush and in 1981 I contributed my first article to *Earth Garden* in issue 31.

Looking back, I've often wondered where all those contributors are now. I'm sure no longer sporting those thick mops of curly black hair, or those bulging muscles. And

whatever happened to all those pairs of bib and braces you simply had to wear down on the farm?

Maybe a few of us stayed, but many left and went back to the cities to work and raise children, perhaps realising that, for them, it was only a dream. I found that period exciting. It was full of good friends, common goals, woodstoves, too many pumpkins, fruit trees, swapping chickens, lemongrass tea, jars of honey, sweet marmalade and youth.

The survivors must all be clocking 50 now, with the back not so strong and the goats given away, although still with a few chooks, and boy, you should see the vegie garden — got that bit right! I'm now into the 17th year since my great escape and I wouldn't want it any other way. Of course, if it wasn't for Keith and Irene and *Earth Garden*, who knows where I might have ended up? Where? Right here of course!

Good on yer *Earth Garden*. (By the way, I've just built a shelf for the next 80 issues.)

Cracks in the mould

by Jill Redwood

Goongerah, Victoria.

A LOT of water has passed under the bridge since I used to wag school to 'frontline it' in anti-Vietnam demonstrations. Slowly, cracks were appearing in the mould of my urban upbringing. Yes, I hate to admit that I had a very average, city childhood. A leaning towards a country life began with my first plastic farmyard set — but in 1972 I was too old for that, and too young for the real thing.

I remember my dog waiting for me on the footpath in Melbourne, when I walked out of a bookshop clutching the first copy of *Earth Garden*. By this time I had my sights firmly set on becoming a 'hayseed', somehow, and so envied those people I read about in *Earth Garden*.

I found being around animals vastly more satisfying than trying to deal with people, but when the chance came to work with furries and feathereds, it was in an institution

surrounded by bars, microscopes, scalpels and suffering animals. So, despite study and a promising career in butchering helpless creatures, a friend's offer of an old farmhouse in the country needed very little deliberation. My dog and I moved out and that was the beginning.

On \$12 a week unemployment benefit, self sufficiency took on a new meaning. Over the next ten years, I gathered skills, money from poorly paid but satisfying work, and a deeper commitment never to return to the assaults of the city; even if it meant living in a hollow log.

I suppose, in my case, the drawbacks of being a woman going it alone were offset by the spirit of a challenge, and by my being as stubborn as a gumboot in mud. And challenges there were. It hasn't all been honey bees and sweet-peas, but among the many satisfying achievements one of the greatest has been proving wrong those who underestimate women's abilities. Unfortunately many of those who did were women. Recently, rural women's groups

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have managed to draw out and encourage women to recognise their potential. Women often have to use more brain than brawn to tackle a job, but rarely does anything require the assistance of a muscle bound hulk (of any sex).

Twenty years ago I was pretty wet behind the ears. I remember going to collect firewood armed with only a tiny hatchet. Now I set out with chainsaw, crowbar, axe, wedges, chains, shackles and the ute! Twenty years ago I also remember working on issues which are still current today — recycling, kangaroo and whale slaughter, water and air pollution, and the like. Unfortunately not much has changed on those fronts in 20 years. Governments are still dominated by the accursed economic rationalist, who never seems to learn. Our leaders could do well to study the simple mechanisms of the nourishing and sustainable compost heap or the behaviour of the so-called lesser beasts. Even the humble earthworm could have more importance today than all the economic summits and political experts put together.

But out here, the barrow wheels are turning. We Earth Gardeners are recycling, refusing to douse the land in chemicals, reducing the amount we consume and valuing that which we do. Thanks to influences like this magazine, for the past 20 years there's been a steadily growing base of



Jill Redwood at home in her handmade cottage in East Gippsland.

Earth Gardeners in our cities as well as country areas. Another decade could see our philosophies of sustainability being practised on a global scale. I wish good fortune and success to everyone who ploughs in the shit and plants the seeds.

Warmth and camaraderie

by Dianne Warren

Box Hill South, Victoria.

I REMEMBER 1972 as if it were yesterday. As an impressionable nine year old, my memories are of the Sunbury Festival (my mother never would let me go), the beach, smoking Marlboroughs for the first time, Indian toe thongs, listening to Joe Cocker, and long-haired babysitters expounding their views to a captive audience.

In 1972, when I grew up I wanted to be a hairdresser, study psychology, be a writer and own my own business. The first ambition fell by the wayside, however, 20 years on I still have a profound interest in the human psyche, I write when I have something to say and have nurtured a very rewarding herb growing business from scratch.*

The accepted trappings of 'success', like a flashy house and car have never really appealed to me. All I saw was a greed for more. No, I wanted an extraordinary life filled with diversity of culture and experience. The next 15 years saw me searching for my place in the world and evaluating my life. What happened to the extraordinary life I envisaged? I felt conned. I'd played the game, but still I questioned everything, trying to make sense out of it all. It was time to take stock of my life and reassess my priorities. Being true to one's self may be the greatest gift one can have.

The first copy of *Earth Garden* I bought was the

April/May 1989 edition. Why hadn't anyone told me about it sooner? Now, thumbing through that worn copy, I notice that I had highlighted two back issues in the index: 'Running your own business' and 'Living from your craft'. The seeds were obviously being sown.

I've often read with interest in *Earth People Write*, other people's views on how their lives have been enhanced by applying the wisdom of *Earth Garden* philosophies. My own experiences are testimony to what this great publication has to offer. I'm touched by the warmth and camaraderie that fellow Earth Gardeners share with one another. Sharing the *Earth Garden* philosophy is like being part of an exclusive club that offers the secret of how to achieve a more satisfying and gentler way of life. Since 1989, *Earth Garden* has become like an old and trusted friend. Always there offering new inspiration, urging my dreams on to greater heights. Somewhere along the way I'd forgotten how to dream.

Last year, I was lucky enough to obtain EGs 1 to 24. I sat down for about a week and virtually didn't look up until I'd devoured the lot! 1972 seemed to be a year of change in ideals, with many people searching for a more harmonious lifestyle. Traditional views were challenged as people seemed to be turning their back on the capitalist world. I wonder how many actually found what they were looking for. What some of those people are doing now? I applaud *Earth Garden* for its magnificent dedication and all those who contribute. May I be sitting at my battered typewriter in another 20 years reminiscing. Here's to happiness.

*See Dianne's fascinating article in EG 78.

—Alan.



Photograph by Jacklyn Wagner

The Power and the Passion in Nimbin

— Rainbow finds a new ohm —

There were celebrations in the streets of Nimbin during March. That's not unusual in the Rainbow Region's Mecca for environmentally conscious people. This time though, the cause for celebration was unusual. Peter Garrett, President of the Australian Conservation Foundation and singer with the rock band *Midnight Oil*, was in town to open the Rainbow Power Company's new factory — a mudbrick, energy-efficient factory that heralds Australia's first move into sustainable industry.

by Greg Simmons

Trentham, Victoria.

IT'S almost 20 years since the sleepy village of Nimbin in the Northern Rivers region of New South Wales hosted the celebration of a whole new way of thinking — the Aquarius Festival. And now in this illustrious year of

Earth Garden's 20th birthday, Nimbin is at it again. This time the focus is sustainable industry.

Aquarius was planned as a 'survival' festival with the intention of buying a large country site where people could stay after the festival ended and start a whole new community. In essence this proved impractical, but in reality it's just what happened, except that more than one site was

bought and more than one community started. So began the 'recycling of Nimbin'.

Those who stayed were seeking an 'alternative lifestyle' which meant that shelter had to be supplied and water and power systems developed, independent of existing services. The demand for renewable energy systems and products has been greater than anyone imagined, especially with the added marine and caravan industries, as well as farmers living remote from the power grid.

A small renewable energy retail operation began in Nimbin. So it was from humble beginnings in the back rooms of many new dwellings around Nimbin that the Rainbow Power Company (RPC) was born.

Principals and ethics

The principals and principles of the original organisation are virtually the same today. As Peter Pedals, co-founder of the company, and long-time *Earth Garden* contributor explains, "We believe in what we are doing. We set up the company with the best structure we could, in order to be ethical and remain that way.

"We all live with the independent, non-polluting power systems that we design and install for others. Because

our own homes use these systems, we know that they work and are reliable. This experience also means we are able to offer sound advice," he said.

New factory's design

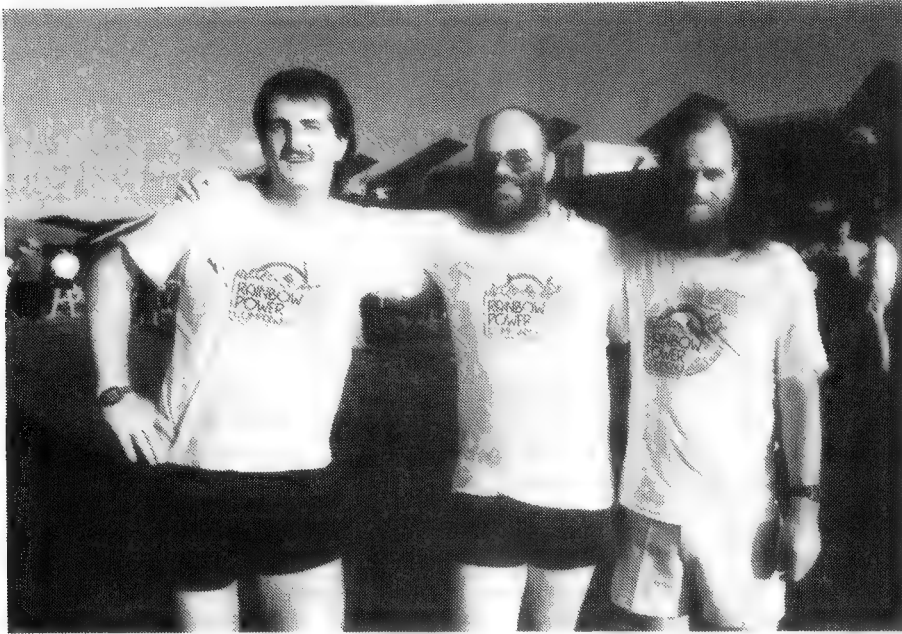
By 1991 the RPC knew that its growth and productivity were being severely limited by lack of space. Local architect, Eddie Buivids, drew up final plans for a factory that would take the RPC, and hopefully lead the world, safely into the 21st Century.

The factory had to operate independently of the power grid, using solar panels, a wind turbine and, eventually, a steam engine to generate the power to keep its battery bank fully charged. The building needed to incorporate passive solar design to stay cool in summer and retain heat in winter. Natural light was needed to minimise power requirements for lighting. This is partly achieved by a central, glassed-in courtyard which also allows a breeze into some work spaces.

The whole building is based on a low-cost, high-speed method of construction without compromising aesthetic appearance. So once the frame and roof were up mudbricks were imported from a local manufacturer for the exterior and interior walls.



The new factory nestling in the hills of Nimbin.



Rainbow Power Company's three amigos and principal directors: (from left) Dave Christmas, Dave Lambert and Peter Pedals.

Random inserts of glass in the mudbricks give a contrast of texture and light. But two of these inserts have a more significant meaning: they are glass jars which contain a copper sulphate solution that has been used for two years to make the RPC's printed circuit boards. At the end of its useful life, the solution was placed in the jars and then into the walls as a statement of the company's dedication to keeping its own environment clean. "The jars will be there for 100 years," said Terry McGovern, the RPC's Production Co-ordinator.

All the major work — the slab, the framework and roof, carpentry, plumbing, wiring for power, computers, alarms and telephone systems — was carried out by local contractors. The landscaping features native vegetation thanks to donations of trees, labour and experience from local individuals and organisations.

Nimbin procession

Before the official opening ceremony, there was a typical Nimbin-style procession of stilt-walkers, street theatre

performers, banner wavers and people in costume, all led by a 12 metre long rainbow serpent. Local musicians and poets also contributed to the proceedings.

Peter Garrett's speech

In his opening remarks, Peter Garrett congratulated the company on its achievement in building the first Australian factory to be environmentally friendly and self-sufficient in energy.

"This is an invaluable contribution to our economy and a working example of industry of the future," he said.

Peter then attacked the Federal Government's 'One Nation' statement and the Opposition's 'Fightback' package, as having substantial deficiencies for the provision of sustainable energy for Australia.

"Australia could meet its everyday power needs by using sun, water and wind. A major boost in funding is essential to achieve this," he said.

Before the large crowd Peter criticised large power authorities which are subsidised by governments to provide inefficient, below-true-cost electricity.

"Australians are pretty good talkers but it is often not easy to turn rhetoric into reality, as has been done here in Nimbin," he said.

With the vastly improved capacity that the new \$300,000 factory offers, the RPC can continually expand their operations.

"We are manufacturing a number of products we've designed, such as a micro hydroelectric turbine, sine wave inverter, ceiling fan and shunt-regulator," says Peter Pedals.

"Our objectives are to increase the scope of low voltage systems, to increase the range of products available, to improve their quality and, in the process, employ some of our local shareholders."

The RPC maintains close contact with other manufacturers of renewable energy products, and even acts as a distributor and agent



Without sunshine, there's no rainbow.

for some of them.

The RPC also has an extensive mail order business, as well as supplying other retailers and distributors throughout Australia.

A recent exciting development is the company's involvement in the export market. The RPC is a founding member of RESHAPE, an umbrella organisation set up to market its renewable energy products and technology on the export market. Already sales have been made in the Philippines, the Pacific region and Asia. Small hydro power



Nimbin locals off to see the Rainbow wizards.

generators manufactured by the RPC have been exported to at least five developing countries.

Now that the new factory is operating, it will become a tourist attraction. Three coach companies have arranged to call regularly, and a Finnish Rotary exchange team asked for a

special tour. But then that's not so surprising. After all we're talking about Australia's first ideologically sound factory, with possibly the world's most appropriate address: Rainbow Power Company, 1 Alternative Way, Nimbin.

Living rough

by Liz Sinnamon
Kenilworth, Queensland.

IT is now almost the fourth anniversary of my move to 'a place in the country'. As many *Earth Garden* readers are aware, I moved from suburbia with my two daughters, to settle on a four acre property in Queensland's Sunshine Coast hinterland.

The property is now well on the way to being fully established, with over 45 fruit trees growing well, plus lots of native shrubs and ornamentals. Palms, monsteras, bananas and frangipani give the place a lovely tropical atmosphere.

My first cow (23 years old and purchased cheaply) has died, leaving a beautiful jersey heifer in her place. Sandy

is due to calve in four months. I have chickens, geese and ducks and also a lovely doe (unwanted by the owners) named Moon, who is a treasured family pet. We also have two adorable donkeys, (mother and daughter) who belong to my daughters, Olivia and Alana.

The house is still not properly finished. The bathroom is unlined, and has no linen press or vanity basin. I have an outside toilet and laundry, and still cook the family meals on a small caravan stove.

Curtains on the windows are unnecessary because I have complete privacy. I love to be able to see the trees and the beauty of the countryside wherever I am in the house. There are no flyscreens to be seen — I like open doors and windows, allowing a full view of the outside area, plus plenty

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of breezes. (We are learning to live with the bugs.)

We often sit outside on the tiny front verandah, and enjoy the storms that pass over in the summer months — the smell of the rain, the beauty of the droplets forming a pattern on the dam, the wind — and just to experience the force of Nature. It is difficult to relate the pleasure of seeing the sun rise, warm and glowing, and the joy of the exquisite light of the full moon shining off the trees.

During the past years, my friends have commented on the change that has happened to me. I am more 'laid back' they say, not as 'intense', they comment. The peace and

quiet of living in the country have a definite effect. Slowly, quietly, so you are not even aware of it.

I was prompted to write this by a visit to a friend's home in suburbia. The curtained windows, flyscreened doors, close neighbours all gave me a feeling of claustrophobia. Shut in — away from Nature and from living things. "You live rough," they said.

Many of us have chosen 'living rough', complete with the struggles and hardships to find independence, freedom from debt, and to be as self sufficient as possible.

'Living rough' to me is paradise.

Making authentic moccasins

The word moccasin comes from the language of the Algonquin, natives of the New England coast of North America. The name moccasin, however, has become the accepted name for the leather footwear of most of North American Indians. Moccasins, like other Indian dress (breechclout and leggings, for example) were also adopted by the white colonial settlers. The instructions Keith describes here are for making this original style of moccasin.

by Keith Burgess

Armidale, New South Wales.

THE method for making moccasins that I describe here is for the centre-seam or woodland moccasin, which generally had wing flaps or cuffs. These cuffs can be incorporated in the pattern or attached later. *Figure 7* shows moccasins with cuffs, and *figure 6* the high top variety. The high top wraps around the leg and provides more protection. The laces are made long so they too will wrap around the high top. When the shorter cuff is used the leather lace is about two foot long, crosses in the front, wraps around under the cuff and ties at the back.

Cuffs can be decorated with silk ribbon or braid edging, beadwork, embroidery or a combination. High top



moccasins are left plain.

First of all, lay a large piece of pattern making cardboard or heavy paper on the floor. Place either foot (it does not matter which) in the centre of the cardboard and trace its outline (*figure 1*). Draw in line AB, as shown in *figure 2*. For a nine to 12 inch foot, add $\frac{3}{4}$ inch to the heel and $\frac{1}{2}$ inch to the toe. This will be the length of your piece of leather.

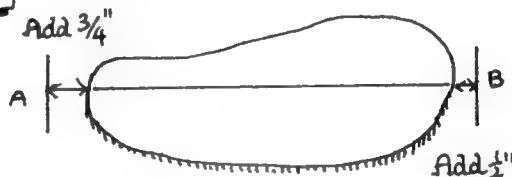
With a piece of string, measure the circumference of your foot (*figure 3*). Then mark points C and D, as shown in *figure 4*, by folding the string in half and placing one end on the centre line AB — the other end will give you the points C and D.

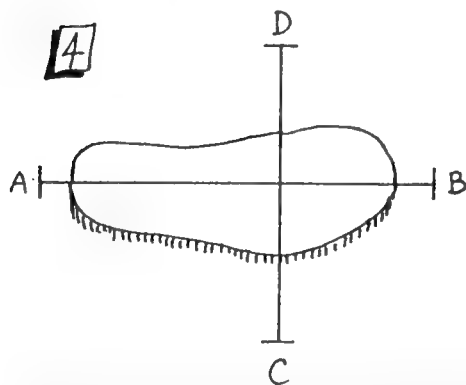
You can now draw the pattern shown in *figure 5*. Draw in one half first, cut it out and then fold on the centre

1



2





line AB and trace around the edge. This keeps both sides the same. Cut out this pattern and transfer it onto a heavy piece of material. This can be a 'trial' moccasin.

Having transferred the pattern to the cloth, fold along line AB and sew from B to CD and from XX to A. The heel tab can be left out, tucked inside, or folded up and sewn in place. Try on the trial moccasin. Any alterations should be made now. Note the size of the opening for the foot—you may need to make this bigger or smaller.

On to the leather

If you are happy with your pattern you can now transfer it onto leather. If you want a strong pair of winter moccasins, cut out two lots, one of sheepskin and another of soft leather and these can be sewn together. For stitching the moccasins, I use a heavy linen thread. Originally, sinew or linen thread would have been used and for living history enthusiasts these are the only acceptable threads. If you are not concerned about authenticity, there is a simulated sinew, available from Tandy outlets, which I am told is very good. Linen thread can be purchased also from Tandy or a local saddler.

I use an awl for making the holes before stitching, and sew with an ordinary whip stitch. I make the thread long enough so I can go back again over the same seam which leaves a cross pattern of stitching.

The moccasins must be stitched inside out, and then turned right side out when finished. To do this I use a broom handle. I turn the heel first by hand and do as much of the toe end as I can by hand and then use the broom handle to finish off. If you are using sheepskin, don't forget to sew the moccasin with the fleece out.

If you want to make a Plains-style moccasin, you

can use the same pattern, but make the alterations as shown in figure 8.

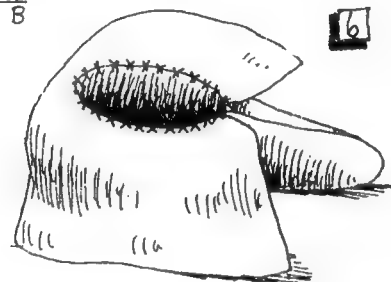
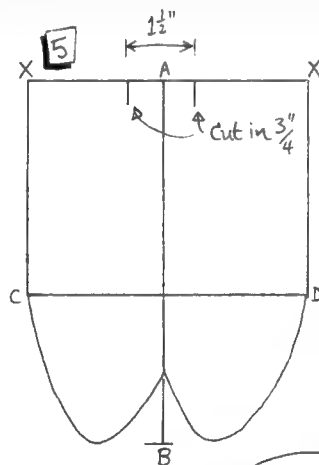
Using moccasins

When wearing moccasins you will find that, because they have no raised heel, your foot will sit flat on the ground as Nature intended. If you are accustomed to wearing shoes or boots with a heel, it may take a while to get used to wearing moccasins. Also, unless you cobble on heavy, shoe leather soles (but I suggest you stick to bag leather), you will find that you can now feel with your feet. The stones and rough ground will not cause you discomfort, but you will be able to feel them. There is no right and left foot until the moccasins have been worn for some time.

Laces are put in by punching or cutting holes around the ankle area. Side flaps are optional. I always put high flaps on mine for extra protection and to stop dirt and snow from getting inside. These flaps are sewn on after the moccasin is completed (figure 6).

A welt inserted in the front seam, and a cobbled sole will prolong the life of your moccasins.

To cobble on a sole you need two leather inner soles, and one leather outer sole per moccasin. You will need a tack hammer and some shoe tacks (I use medium cut 13 mm tacks), and a last. Place the moccasin, with one inner sole inside, on the last. Put the outer sole in place, and start tacking on the sole, starting at the toe and alternating sides. Do not tack in the centre because this may cut the thread holding the moccasin together. Keep a careful watch to see that the outer sole does not move out of position while tacking and make sure the last is under each tack you put in, even if you have to move the moccasin across each time. As



you get close to the heel, you may find it easier to turn the moccasin on the last and put the toe of the last into the moccasin's heel.

When you have finished putting on the sole, you can put the second inner sole inside, and you have your moccasin ready to wear. If they are a little tight, wear them for a while — centre-seam moccasins tend to stretch.

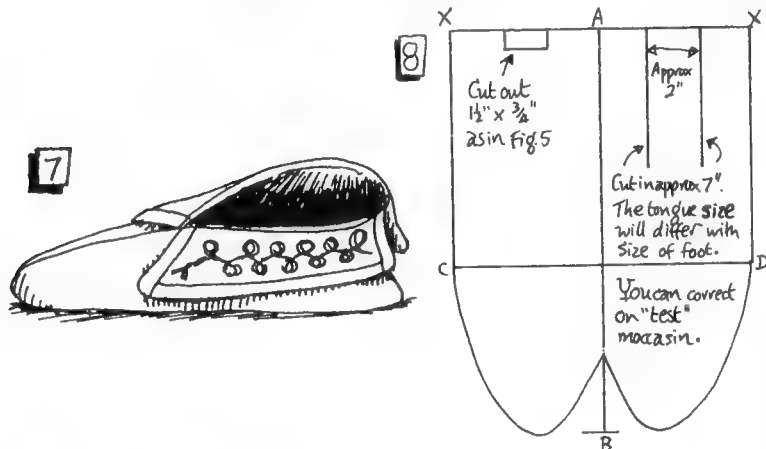
Animal fat is the best for rubbing into the moccasins. The addition of melted beeswax is even better. If you don't have either of these, use dubbin.

If you can afford to buy new leather, all well and

good, but I prefer to go to the Salvation Army and St Vincent de Paul 'op' shops and buy secondhand materials. Sheepskin jackets and rugs, high-topped ladies' boots, leather skirts or coats can supply good uppers, and ladies' shoulder bags make good sole leather.

The laces can be cut from straps and belts or from circular pieces of leather. Lasts can be found in secondhand shops or at garage sales.

Shoe tacks and other shoe making supplies can be obtained from Jolly and Batchelor Pty Ltd, PO Box 538, South Brisbane, Queensland, 4101.



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EG: WHAT A MILESTONE! HERE'S TO ANOTHER 20!

Jillaroo Farm Hints

Edited by Jill Redwood

Jillaroo Farm Hints presents bush skills and farm tips each issue. All readers are welcome to contribute. If you have any hints up your sleeve that you inherited from Granny or developed yourself, send them to Jill Redwood, Editor, *Jillaroo Farm Hints*, RSD Goongerah, East Gippsland, 3888.



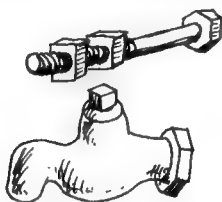
Still waters . . .

To make distilled water for a battery, place a non metallic dish inside a big enamel pot. Fill the pot with water up to half the height of the dish. Put the pot on the stove with its lid turned upside down. Fill this with water. As the water simmers away, the steam condenses on the pot lid and drips back into the bowl.



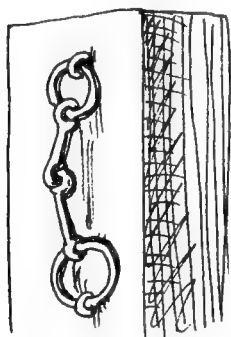
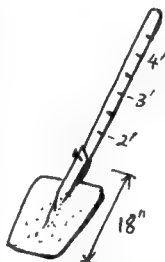
Tapping resources

If you have an old tap which has lost its removable handle, a functional copy can be made from two nuts and a four inch bolt. Tighten the nuts against either side of the tap's square top, leaving enough of the bolt spare to act as the handle.



Shovels rule OK

Measure and mark (with a small saw cut) six inch or 20 cm intervals along the shaft of your long handled shovel. Start measuring from the shovel pin, which should be 18 inches from the blade edge. You'll find this a very handy measuring tool, especially when digging post holes or checking timber lengths.



Bit of a handle

A bit from an old bridle makes a good handle for a gate, door, drawer or cupboard. The rings can be fixed top and bottom with a couple of fence staples.

Gate's closed

A stirrup can be used as a gate catch.



Lucky throw

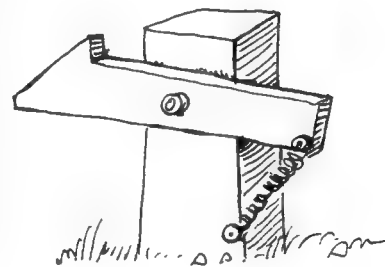
Horseshoes? Hammer a stake in the ground and try your aim.



Gate's open

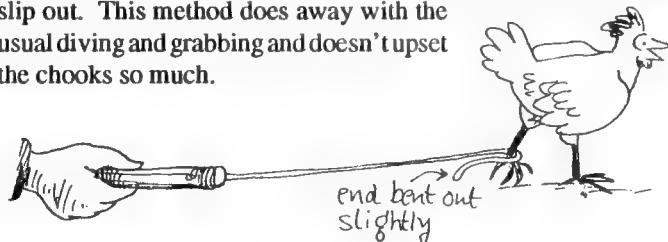
To hold a gate open, a simple stay can be made from two pieces of wood and a spring. Set a piece of

wood sturdy enough to take the thump of the swinging gate in the ground in the appropriate position. Fashion a 'latch' from another piece of timber and attach to the stump at a central point with the spring connecting the end of the latch to the stump. A length of inner tube can be used instead of a spring.



Chook hook

A good chook catcher can be made from a metre length of old number eight fencing wire. Fix the wire to a wooden handle for extra length and make a hook at the end tight enough to get a chook's leg through but not big enough for its foot to slip out. This method does away with the usual diving and grabbing and doesn't upset the chooks so much.



Season

by

Season

Earth Garden's regular organic gardening column,
written by Jackie French

**The next twenty years — winter growing — winter
harvest — window boxes — three gardens for
spring — keeping citrus**



Last year we stayed with friends at their place next to a railway line. We ducked the first time a train passed; they just stopped talking till the noise died down.

"It takes a week to get used to it," they said. "Now we hardly notice."

Humans are an adaptable species. Our lives can get worse and worse — but if it happens gradually we don't notice.

Twenty years ago my housemates and I progressed from '101 ways with mince' to a '1000 variations on brown rice' (and a few unmentionable experiments with eggplants). Now my stepdaughters mostly eat take-away — the 90s version of cheap eating.

When I was a kid we would swim in any river unless it had a dead cow floating in it. We used to sleep with the doors open then, too — security was only something you worried about if you had a Rembrandt in the kitchen.

We've spent the last few years here building our Eden, but it'd be foolish to think it's a safe one. There are 'natural' disasters, like fire (though most bush fires are man made); there's the decline in the quality of our air and water, there's erosion, salination, aluminium toxicity. Even though we don't contribute to them (in fact, do our best to redress them) we're still affected. Nowhere is safe. This is a time of uncertainty. Twenty years ago, when *Earth Garden* began, was a time of hope.

Last month we went rambling through our valley here. A 100 years ago it was filled with people; the trees had been cut down to feed the gold mining dredges and the flats fenced to provide milk and vegetables for the miners. Now the trees are tall again. Even the orchids have come back. The powerful owls hunt possums, there are bettongs in the grass, and the only sign of humans we saw all day was an old patch of wild iris under a kurrajong tree.

The Earth can regenerate (though maybe not in our time). No plague lasts forever — not even a pest as bad as humanity.

Usually, when I'm asked a question about pest

control, I don't give the side effects of the 'conventional' product. I'd rather

people use organic solutions because they work better (in the long run) rather than because they're afraid of carcinogens, mutagens, teratogens and the like. There are good and beautiful things about humans, too — and good, sustainable ways of living. I'd still rather celebrate those than talk about the other, darker side of humanity. If you celebrate something, you might convince other people to work towards it.

I think this is the real value of *Earth Garden*, and has been since it began — it celebrates, instead of mourns.

Winter growing

To keep hens laying in the winter

I quote from the notebook of Mistress Margaret Dodds, 1829: "To keep hens laying in winter, the French give nettle seed and hemp seed. . . ." No, I haven't tried it.

Hens lay less in winter as days get shorter — give them more light (even artificial) and they'll lay more. Often hens lay fewer eggs because they're not getting enough feed — keeping warm takes more energy, and therefore more food. Give chooks more winter protein. Add hot water to bran in the morning for a hot bran mash. Make sure the run is draught-proof and insulated (a climbing passionfruit vine or other climber is a good chook run insulator). And of course you might try the Indian hemp seeds.

What to plant now

Most plants stop growing at temperatures of about 4° C. Apart from onions, most things you put in now won't grow till spring, they'll just sit there, dreaming of warm weather. When warmth does come, they'll probably go to seed. This is fine if the crop is peas or broad beans, where the seed is edible, but not so good for lettuce or carrots.

Don't be misled by 'frost hardy' plants — they may survive the winter, but they won't grow much. As a general

rule, if you're not having to mow your lawn yet, nothing else will grow either. Once the grass starts growing, other plants will too. So, if your area is warm enough for your grass to grow all through winter, it's warm enough to keep planting.

In warm areas try winter lettuce seedlings (Imperial D, Winterlake, red mignonette, Imperial triumph). These will go to seed in spring, so pick them as soon as the leaves are large enough to use. Plant winter radish, Chinese celery and Chinese mustard in warm areas, and onions anywhere unless the ground is frozen.

Don't plant frost sensitive crops until the peach blossom falls or the first spring roses bloom, or the swallows start plastering up their nests again, or until the children can make mud pies without their fingers turning blue.

This is the time to check seed catalogues and think of next year's gardens. Don't get too ambitious. Every year I choose about 20 unusual vegies I want to grow, order the seeds and bung them in. By mid summer we're still eating our normal lettuce and silverbeet and beans — most of the unusual vegies get left for the chooks. Try to limit yourself to one new crop a year (I would if I had the willpower).

This year I'm tempted by Phoenix Seeds' 'camas' — an edible lily whose bulbs can be slowly baked. I've eaten native orchid tubers this way and they were delicious — but only harvest those you've grown yourself, or you may help wipe out native orchids. You can order a Phoenix Seeds catalogue from PO Box 9, Stanley, Tasmania. (See also Eden Seeds in 'Questions and Answers'.)

Window boxes

Winter is a good time to think about window boxes because they get the stored warmth of your house and start growing when everything else is dormant. You also get to see a bit of green growth in a slow season.

Window boxes can be either outside the window, for passers-by to look at, or inside the window where they'll be more sheltered.

There's an art to feeding potted plants, especially indoor plants. Only feed them when they are actively growing, otherwise the fertiliser will build up in the pot and may damage plant roots. Many houseplants only grow slowly, if at all because they don't have the light or room to start expanding. I find a soluble, foliar seaweed spray one of the best plant foods because most of the nutrients are taken in by the leaves, not the root, which can be pot bound. Using a foliar spray also washes dust and other debris off the leaves. Use the foliar spray at about half strength once a month — or more if you see the plant put on a spurt of growth.

What to grow in your window box

Don't limit yourself to just flowers in your window box. How about a box of Swiss chard (silverbeet with multicoloured leaves), bronze fennel (very cold-hardy, you can eat the stems, or use the tops in hot vinegar

to make a flea repellent wash for cats and dogs).

Add a few bulbs around the vegies, if you can still get hold of them. In warm areas, you'll have to stick the bulbs in the fridge for a few weeks after the foliage has died back so the poor things don't get confused and think they haven't had winter yet. Tulips in a window box are a stunning way to start spring. Grow some primulas around the edges — they'll keep flowering for months in a wonderful profusion. Put a strawberry or two in the corners so the runners can trail over the box.

Three easy gardens to prepare for spring The pile-of-weeds garden

Clean out your garden debris and dump it on a patch of weeds or grass. Wait till spring. If spring is next month in your part of the world cover it with black plastic to speed things up.

In spring, haul the pile of weeds somewhere else (I dump ours under the avocado trees, where it is hidden but feeds the trees). Underneath you'll be left with a moist, soft bare patch that has been fertilised by decomposing weeds and that is excellent for carrots, lettuce and other vegies that need a weed-free area.

An alternative is to jump on the pile of weeds to flatten it then part it gently and plant seedlings in the soil

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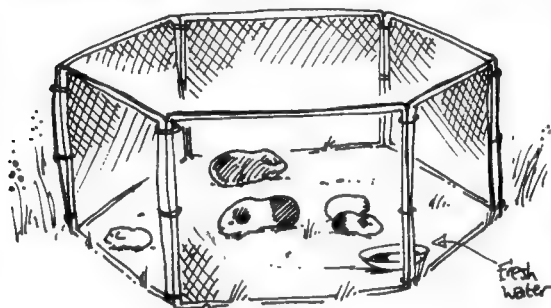
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Guinea Pig Garden



Run chokes, rabbits, guinea pigs in moveable enclosures to clear ground for a new garden. Then plant straight into well-manured, undug ground. Mulch well to inhibit remaining roots.

underneath. Keep the weeds away from the seedlings in case they rot and also beware of snails. Water with liquid fertiliser because, until they decompose, the weeds may draw nitrogen away from your crop.

A guinea pig garden

This can also be done with rabbits or chooks. Make a small netting enclosure for the animals and leave it in the same place for a bit longer than you normally would. Feed them well with other scraps. When they've denuded the patch, move the enclosure somewhere else and plant in the manured ground. The grass and weed roots will still be in the soil, so mulch around your seedlings with newspaper for a few weeks till the roots are dead.

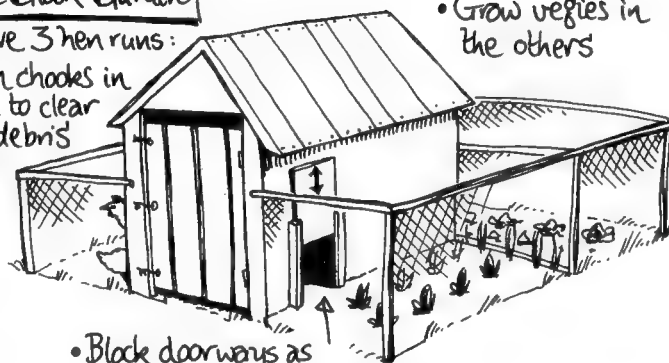
If you have a chook house, consider having two or three runs, instead of one. Keep chooks in one run while you grow your vegies in the other two, then swap the runs around to clean up the crop debris at the end of the season.

Newspaper garden

Spread overlapping newspaper on the grass, or on

The Chook Garden

- Have 3 hen runs:
- Run chokes in one to clear up debris



- Block doorways as required using a piece of wood on runners, or wedged in, so that chokes only use the current run

a weedy spot that you'd like to turn into a garden. Water till it sticks together and leave the whole mess where it is till you're ready to use the space, then drag it away. The soil underneath will be bare, with worms investigating the dead grass roots. Now plant.

And for committed diggers . . .

Dig your garden bed in mid to late winter, then cover it with clear plastic. The soil under the plastic will be warm and moist. This will encourage the weed seeds to germinate prematurely and probably die — but, if you really love digging, you can lift up the plastic and attack them.

This 'solarisation' is also good for ridding the soil of last season's pathogens, particularly where tomatoes have suffered from fusarium wilt.

Anti mildew compost

If you have a problem with powdery mildew in summer (very few of us miss out on it), make this medicinal compost now to use later in the season to combat it.

The mix should comprise: five parts lucerne hay; two parts wattle bark (it's easy to strip off dead trees); and 1/20 part casuarina leaves. If you have them, you can also add: five parts (or less) of comfrey leaves (hard to find in frosty areas in winter); and a handful of horseradish leaves and yarrow.

Place in a drum with the bottom cut out so it touches the soil. Toss every week. When you can no longer distinguish the lucerne stalks, place the compost in a drum and cover with water. Extract the water when you want to spray plants prone to powdery mildew. Before spraying plants that already have powdery mildew, pick off the affected leaves first because they won't restore after being damaged. The

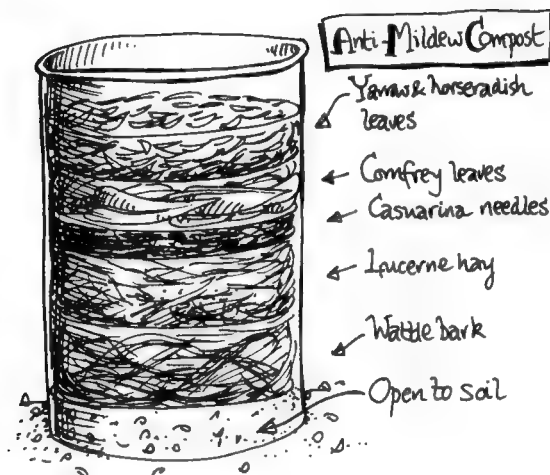
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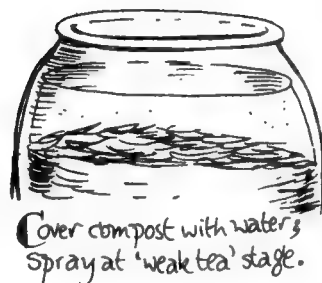
compost water must be diluted to the colour of weak tea.

This is also a good foliar spray for plants affected by root rots, including phytophthora.

Winter harvests

Winter salad

Take winter lettuce leaves, rocket, radish tops, chopped carrots leaves (tastes like celery), cabbage stalks with the tough outer skin peeled away and the inner membrane thinly sliced (lovely), tiny baby corn stripped from the sides of corn stalks where it didn't have time to mature, finely chopped turnip leaves, a few chopped beetroot leaves, a few chopped tender lemon leaves (only use young ones) chopped celery, chopped lovage, kiwi fruit, avocado, corn salad, finely chopped Chinese cabbage, grated carrot and grated raw beetroot (this is very sweet and tender when grated). Mix all ingredients on a platter. Dress with oil and lemon with ground walnuts.



Keeping citrus

Citrus fruits are best in winter — the cold makes them juicier and sweeter. Most of our citrus varieties ripen in winter, though, if you're not growing commercially, most will hang on the tree for a good six months,

getting bigger and puffier and a thicker rind till they finally drop or the bower birds get them. Here I've found that mulch-fed citrus trees — or those that haven't been fed at all and so are starved of nitrogen — keep their fruit hanging much longer than the trees fed either with hen manure or artificial fertiliser (which we use, sometimes, for comparisons in trial plots). If your citrus fall off the tree too soon, look at your feeding regimen. Once the tree is fully grown, a yearly mulch plus a scattering of hen manure every two years should be enough.

Wet weather and fruit fly damage will also cause the fruit to fall. Import some geese to eat the fallen fruit (it turns their droppings yellow but fattens them well) to cut down on the spread of fruit fly and mould. In a high wind, our geese sit under the orange trees and wait for the fruit to fall. The wallabies eat the ones that fall at night.

Organically grown citrus will keep for months in an



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airy cupboard. The skin will just get harder, though the inside will be sweet. If you fear mouldy skins, dip them in boiling water for a couple of seconds and dry well before you store them.

An old fashioned way to preserve citrus through summer was to store them in bran to keep out the air, keep them cool and absorb moisture. Commercial, waxed citrus will rot.

Keeping lemon juice in the fridge

Fill bottles with juice, then top with a little salad oil and seal. The juice will keep for several months like this.

Green ice

Rub the zest off six limes and six lemons with a fine grater. The peel should be very fine (almost liquid) with no white at all. Add an equal amount of castor sugar. Mix well and seal. After a few days the mixture will be semi liquid and oily. Use a dessertspoonful in cold water as a cordial or add it to cakes and biscuits instead of lemon juice or essence. Green ice keeps for months in a sealed container. Once opened, it should be used at once or kept in the fridge.



Dried mandarin peel

Peel the mandarins, scraping off as much of the white as you can. Place in the sun till crisp — this will take anywhere from a day to a week. It dries more quickly if you slice the peel and place it on foil but this isn't necessary. When it's dry, crumble it (if it doesn't crumble, it isn't dry enough) and store in a sealed box.

Mandarin peel can be invaluable once you are used to using it. Powder a little into cakes, or use a teaspoonful with a beef stew. A teaspoon of the powder added to whipped cream is better than any liquor. Place some in a bottle and cover with brandy or gin to drink in six months and savour.

Dried mandarins

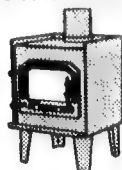
Choose small, sweet and seedy mandarins (not giant Ellendales that are soft and slushy), and pierce each one in many places. Leave them in the sun till they start to shrivel — usually about three days, but more or less depending on the weather. Boil a syrup of one cup of sugar, a third of a cup of water, a dessertspoon of red wine vinegar, a grate of fresh ginger and a couple of cloves. After ten minutes, add the mandarins then remove from the heat. Leave overnight, then boil the lot again. Bottle and seal. Leave for three months.

Pumpkins

The adage "cure your pumpkins on the shed roof" had a good foundation. The skins toughen in strong sunlight, and mould spores are destroyed. The tougher the skin on

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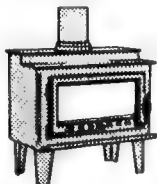


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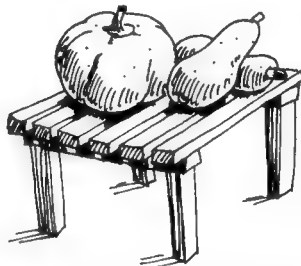
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Pumpkins on the shed roof —
the skins are cured & toughened
and so last longer.



Store pumpkins on racks to
stop condensation.

your pumpkin, the better it will keep. Look for varieties like Queensland blue and Jarrahdale. Make sure you keep pumpkins in a dry spot, where there won't be any condensation to gather on the stalk. Pumpkin rot often starts at the stalk, or underneath where condensation also collects. Try to keep pumpkins on a rack in a dry, airy spot. Store them on their sides, so moisture won't collect in the depressions. If you cut a giant pumpkin and can't give the rest away, try the following, old colonial standby.

Mock ginger

Chop your pumpkin into neat slices, sprinkle with salt and leave overnight. Pour off the juice. Add a syrup of two cups of sugar to one cup of water and a dessertspoon of grated ginger or powdered ginger. Boil for an hour, pour over the pumpkin, leave till cold. Pour off the syrup and repeat at least six times. The pumpkin should look as though it is starting to candy and change colour with the repeated applications of boiling syrup. Put the lot in the oven till the pumpkin is cooked. The outside will still be crunchy due the syrup crystallising, but the inside will be soft. Place in clean jars while hot with a shaving of lemon zest. Seal and don't use for at least three months. This will keep for years.

Cabbages

Keep an eye on your cabbages. Once they begin to elongate they are going to seed. Grab them at once and cut off the stalk to stop the progression and keep them in a dark place till you're ready to eat them.

Dried cabbage

This is usually made from Chinese cabbage, though other cabbages can be used. Choose tender inner leaves for drying. You can brush the leaves with lemon juice first — this will help to keep the colour and softness, but isn't necessary. Place the leaves in the sun for a couple of days till they are almost transparent, but take them in at night.

Brush the dried leaves with water and fill with vinegar rice with a layer of pickles in the middle. Wrap in a neat package and slice thinly, so you see a green, a white then a pickle layer.

For vinegar rice, add two tablespoons of white vinegar and half a tablespoon of sugar to every two cups of rice.

Rumbledethumps

Two cups mashed potato
two cups cooked cabbage
one chopped onion, sautéed in butter
grated sharp cheese
pepper.

Mix all the ingredients except the cheese. Place in the oven, top with cheese. Bake till hot and browned.

Parsnip soufflé

Steam two cups of peeled parsnips until tender. Mash and add two tablespoons of butter, a lot of black pepper and the yolk of three eggs. Now blend in the beaten whites of the eggs (this should be thick enough to stand by itself). Place in an ungreased baking or soufflé dish in the middle of a hot oven (200° C). Check after 20 minutes — it should be cooked (firm and well risen) in 30 minutes. Eat at once. This is good even if you don't like parsnips.

Hot beetroot

Bake beetroots in the oven like potatoes. When they are tender hold them in a teatowel and peel them. Serve while still hot with an oil and lemon dressing.

Horehound beer

This is supposed to be a tonic and good for warding off colds. I don't know if it does either. I don't like it, but then I don't like stout either, and this is very like stout. Some people love it.

Horehound is a paddock weed as well as a cultivated herb. It has roundish furry grey leaves and is pretty, as long as you hack it back so it doesn't get straggly. Beware of seedlings, though, because it will spread.

To make the beer, boil a cup of chopped horehound leaves in six litres of water with 50 g of treacle. Strain and cool and add a teaspoon of dried yeast when it's lukewarm. Cover with a clean tea towel. Bottle after 24 hours.

Check the bottles every day and release the pressure or they may burst. Leave for three days in warm weather or about a week in cool weather before drinking.

Jackie French's Backyard Self Sufficiency and The Music From The Sea have just been released. Her first children's novel Rainstones has been shortlisted for the Book Council Book of the Year Awards.

Questions and answers

If you've got a pest that's bugging you, a plant that you don't know what to do with, or you've lost a recipe, send a stamped, self addressed envelope to Jackie French, PO Box 113 Braidwood, NSW, 2622.

Sandflies

Dear Jackie,

I know the problem with sandflies all too well. I cannot use repellents because I have very sensitive skin, which burns and leaves a large red patch if any kind of repellent or insecticide is used near me.

I have used brown malt vinegar for years to counteract the bites and stings of mosquitoes, midges, sandflies and their like. It does not keep them off entirely but I've found they do not sting so much. Even house flies quickly fly off again, and, the few times you get stung by a starving insect, at least the acid in the vinegar reduces the pain of the sting. I advise people to use full strength brown malt vinegar — it seems to work best for me.

Sincerely,

Tilley Jones, Toogoom, Queensland.

PS. Keep the vinegar in the fridge.

Dear Tilley,

Another reader suggested using a thin film of baby oil to deter sandflies.

Sneezeweed

Dear Jackie,

Today I am gardening from my lounge chair, catching up on writing. Where can I get Sneezeweed?

Yours sincerely,

Margaret Love (Mrs), Tinanee, New South Wales.

Dear Margaret,

Sneezeweed is the native *Centipeda cunninghamii*. It's a small, erect plant with toothed leaves and greenish flowers. Both the leaves and flowers smell unpleasant, but

are good ant repellents. You can use the dried leaves inside, or plant a bush by an ant nest. I don't know anywhere you can buy it, but I've seen it growing wild in Queensland.

You could try growing pennyroyal for another effective, strongly scented, ant repellent. Pennyroyal leaves can be dried and placed on shelves to deter silverfish. Also you can cover the fresh, bruised leaves with oil. Keep them in a sunny place and test every few days by rubbing a little on your arm. It is ready when the scent lingers on your skin for 20 minutes. The scented oil rubbed on a dog's fur after bathing will repel (but not kill) fleas.

Plant pennyroyal between paving cracks to help keep ants away. (Note: this only helps, it's not infallible.)

Tampala seeds

Dear Jackie,

I really love your column in Earth Garden and often buy my copy because of it. I was interested to see in the



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autumn issue that you mention planting tampala. I grew tampala some years ago and it was loved by all our family, but now I cannot find seeds anywhere. New Gippsland used to have them but do so no longer. Can you suggest a source of seed for me?

Keep up the good work,
Tom Chalkley, Bendigo, Victoria.

Dear Tom,

I also got my tampala seed from New Gippsland, but Eden Seeds of MS 316, Gympie, 4570 (write for a catalogue or phone 071 865230) still sells them. Eden Seeds is worth supporting: it's a family business (definitely not a large company) that sells non hybrid, traditional, open pollinated seeds.

If you grow tampala this year you might let some go to seed. Stake the plant well, so it doesn't fall over, and tie a paper bag around as the seeds are ripening, so they aren't lost, and you'll have your own seed for next season.

Eden Seeds also has other unusual 'green vegies'.

Amaranth is a summer annual that grows to about a metre. You can eat the leaves from grain amaranth like spinach (but they have less oxalic acid), or eat the grains like wheat or popped, like corn. Leaf amaranth is grown just for the leaves. It's incredibly fast growing and the leaves can also be used like lettuce. The stems are good, tasting a bit like asparagus. Amaranth is more drought hardy than lettuce or spinach.

Mizuna is a mild Japanese mustard, hardy and fast growing and gentle enough to eat in salads. It is also excellent as a non-hearting lettuce with massive leaves — just pull off a leaf as you want it.

PS. For anyone who hasn't tried it, tampala is also known as Chinese spinach, *amaranthus gangeticus*. The Chinese call it 'salty vegetable'. It's rich in mineral salts for anyone on a low salt (sodium) diet. Tampala is more tender than silver beet or spinach, with a much more subtle flavour. The young leaves have the best flavour. Pick off the big leaves and feed them to the chooks or compost to keep the plant producing small ones.

Fruit fly

Dear Jackie,

I'm writing to you because I've reached the point of despair with our fruit fly problem. This year we lost about 10kg of Hardy Tom tomatoes, as well as quite a few lemons. Nothing I've tried seems to have much effect. I've tried creosote, kerosene and mothballs, as you recommended. I've tried closed traps with sugar and borax in water. I've tried companion planting with basil, lemon balm, tansy, feverfew, southernwood, wormwood and different mints. I've even tried commercial splash on baits of maldison with a protein hydrosalate. I have a Q-fly commercial trap hanging in the lemon tree and it gets about 20 fruit fly a day. Things seem to go reasonably well till we get rain. After a

prolonged period of rain, it's impossible to splash bait and all our fruit gets stung.

Any suggestions?

Many thanks and regards,

Bernard Tola, Camden, New South Wales.

Dear Bernard,

No companion planting I've tried has had any effect with fruit fly, except a climbing, scented leaf geranium that tangles in the trees — and this only slightly cuts down the infestation. It's not a cure, but it is more effective in wet weather when the scent in the leaves is released.

Dak pot traps only trap males — it's the female that lays the eggs — so they are only useful for monitoring a problem, not for controlling it.

The creosote repellent I recommend is just that, a repellent — it won't kill the fruit flies, and isn't effective when there is such a scent of ripening fruit that it overpowers the stench of the repellent (or if there is a large number of fruit flies).

The first step in fruit fly control is to work out where they are coming from and where they are breeding. Although fruit fly can travel many kilometres, usually they don't. Look at your neighbour's fruit fly control; look at your compost heap (put a trap nearby and see if you catch any); check any fruit you've brought in.

Fruit infected by fruit fly usually drops to the ground. Destroy it at once — feed it to animals, cook it, or soak it in water with a layer of oil on top till it's mushy.

Splash-on baits are the best last resort control I know. Maldison does have side effects, but splashing it on affects you far less (if at all) than if you sprayed it and it doesn't touch the fruit, only the bark. For wet weather I'd advise getting a square piece of five ply or chipboard with a wedge cut out to fit round the tree. Balance it above a branch. This will act like an umbrella, leaving a dry section of the bark beneath for the splash-on bait to sit undisturbed. This dry area will attract the flies by providing shelter from the



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rain. Place upended fruit boxes among your tomatoes, and splash the bait on the wood inside. Again the fruit fly will be attracted to the shelter and the bait will be safe from the rain. It's interesting that your Hardy Tom tomatoes were stung they are perhaps the most fruit fly resistant of all tomatoes.

I've found the most effective trap bait is homemade ginger beer, or even failed jam, with a pinch of dried yeast (this bubbles for ages). Fruit juice with yeast added and a bit of oil also works well — the flies get trapped in the oil on top. As a last resort, nets of old stockings slipped around coat hangers can be wrapped around the fruit to keep off the fly.

Pick tomatoes before they start to colour, and ripen them indoors. You might also like to try a winter maturing lemon, though if you do have winter maturers, and they were stung in summer, they might be part of your problem. Pick your fruit as soon as it is ripe, and don't leave ripe citrus on the tree, as the scent will attract fruit fly. The fruit fly must be breeding somewhere and, until you can track this down, you will continue to have a problem. I hope this helps. If you're in a fruit or tomato growing area with lax neighbours, I sympathise.

Grasshoppers

Help Jackie please!

I read your column regularly. I'm trying to establish 25 acres following organic/permaculture lines on the southern tablelands of New South Wales. My hard work is being eroded by grasshoppers of every conceivable colour and size. They have eaten most of the 'exotics' I have planted — tagasaste, rose hedges, ground covers and fruit trees. Many of these plants I grew from cuttings or seeds and to see them destroyed is frustrating.

I've tried spraying the leaves with a clay solution and also making 'leaf huts' around the plants to fool the grasshoppers, but all to no avail. There are thousands of them. Could you offer me any other ideas or suggest trees, apart from wattle and gums, that grasshoppers don't like and are suitable for the climate. Thank you,

Ms Mikala Five, Cullulla, New South Wales.

Dear Mikala,

I'm sorry to have been so long replying. By now the grasshoppers have probably been and gone, but I hope this may be useful next season. Grasshopper plagues will eat anything. They ate green hoses here in 1982 and the washing off the line. 'Oil rich' plants like lavender and rosemary, horehound and lemon-scented gum were less vulnerable. In a bad plague there is only one thing that will stop them: a fine spray of water. I used microjets to protect our young trees. The jets were turned off at night when the grasshoppers were docile, and turned on again in the morning. This kept an orchard of young limes alive when everything around was eaten. If you're on a hill (which is a bad place to be in a grasshopper plague), surround the hill with sprayers to form a sort of wall of water. You can try traps of molasses and water in shallow dishes, or yellow plastic on a dam or swimming pool — they land and drown.

I'd also recommend free range chooks (lots of them) or free range turkeys. They will soon become athletic and 'grasshopper fat'. Encourage large native birds (shallow dams encourage ibis). A flock of ibis will eat a tonne of grasshoppers a week. For small numbers of grasshoppers, try a white pepper and water spray, or suck them up with a 12 volt vacuum cleaner in the early morning, while they are quiet. They make good compost and are worth the trouble collecting. Though there have been other plagues here since '82, we haven't been badly affected — grasshoppers prefer grassland to our 'jungle', and we have more birds to eat them. With luck, you won't have to battle for too many years once you get things going.

The only real cures for grasshopper plagues are to stop idiots draining marshes that feed waterbirds; stop clearing trees to create rich grasslands that grasshoppers enjoy and that evict bird populations; and stop using pesticides that wipe out predators. One marshy dam per paddock would probably stop the plagues — and be cheaper in the long run than clouds of poison.

Again, many apologies for the delay in replying, Jackie.

Homemade marmalade

Commercial, sweet syrupy marmalades have deterred some people from making their own, but once you've tasted the genuine homemade article, addiction can set in. Pamela now makes and sells her homemade product and in this article she shares some tried and proven methods and variations of the process.

by Pamela Odijk

Mt Morgan, Queensland.

The basics

1. You must use good quality fruit. Do not use peel with blemishes.
2. Oranges, lemons, mandarins, grapefruit and limes can be

used in any combination.

3. The pectin content is in the pulp, pith and pips and not in the peel, so it is important to add the pith and pips to the fruit while cooking.
4. It should not be necessary to add extra pectin to marmalade if lemons and limes are used.
5. The main difference between making marmalade and jam



Pamela's marmalades for sale at a local community market. Photograph by Herman Odijk.

is that citrus fruit skins require long slow cooking, or soaking and cooking to soften them before the sugar is added. The peel will not tenderise further after adding the sugar.

6. It is important to get to a 'rolling boil' at the second stage of cooking so the marmalade reaches setting point.

Methods

Marmalade requires two stages of cooking, one to soften the peel and the second to set the marmalade. A large preserving pan, a crock pot or pressure cooker can be used for the first stage, but an uncovered preserving pan is necessary for boiling during stage two.

Stage one

1. Wash and scrub the fruit with a pot scourer or brush.
2. Spread a large square of muslin over a deep bowl. The muslin should be large enough to hold the pith (white fibre which lies beneath the skin of citrus fruits) and pips and be gathered at the top and tied with a piece of cotton.
3. Peel the fruit and cut the peel into thin strips and place in a large preserving pan, crock pot or pressure cooker.
4. Remove the pith with a sharp knife and place this in the muslin covered basin.
5. Cut the fruit in half and remove the pips. Put these with the pith.
6. Cut the fruit into chunks and put with the peel.
7. When all the fruit has been processed, gather the muslin into a bag and tie. Place the bag in the centre of the fruit and peel.
8. Add sufficient water to cover and simmer until the peel is tender. Some recipes advocate soaking overnight and simmering the next day until the peel is tender. In a pressure cooker, half fill it with fruit and add only enough water to cover half the fruit. Allow to soak for 12 hours and pressure cook for 20 minutes at seven or ten lb pressure. In a crock pot, cover the fruit with water and cook on low for eight to ten hours.
9. Allow to cool slightly. Squeeze as much of the liquid as possible from the muslin bag into the preserving pan, making sure the bag does not break. Discard the pith and seeds now.

Stage two

1. Measure the pulp in the preserving pan, crock pot or pressure cooker. For each cup of pulp add one cup of sugar. Place the mixture in a preserving pan suitable for boiling on the stove. If stage one has been done in a crock pot, transfer into another container. If you have used a pressure cooker then leave it uncovered for stage two, but be careful the marmalade does not boil over.

2. Dissolve the sugar and allow the marmalade to boil well until setting point is reached.

3. When set, allow to cool slightly. Stir to distribute pulp and peel evenly, then bottle, seal and label.

Testing for setting point

Use a jam-making thermometer to give you an accurate reading or use the old fashioned method (which I do) of putting a spoonful of marmalade onto a saucer to cool. As it cools, the surface of the jam will crinkle if pushed with a spoon or your finger or if the saucer is tilted. Stop cooking as soon as setting point is reached.

Variations

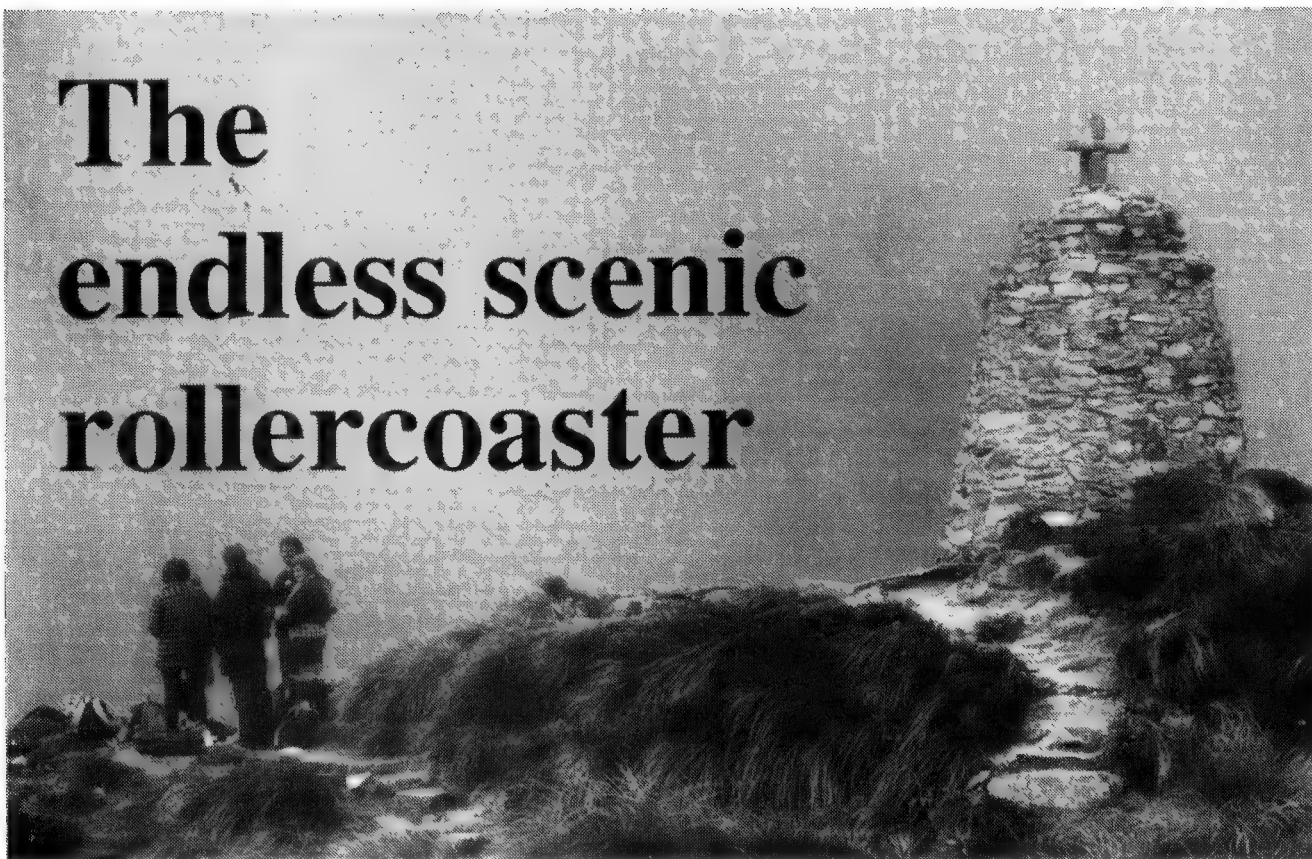
Whisky marmalade. As the marmalade cools, add two tablespoons of whisky for every eight fruits used.

Apple, rum and raisins. Add the apple to the pulp and the core and peel to the muslin bag at the beginning of stage one. Add the raisins at the beginning of stage two. Add rum at the end of stage two in the ratio of two tablespoons of rum for every eight fruit used. Add half a cup of raisins for every eight fruits used.

Ginger. Add powdered ginger at the beginning of stage two in the ratio of two tablespoons of ginger for every eight fruits used.

Lemon and carrot. (Unusual but very tasty.) Use three lemons (peel, pith and seeds removed and chopped as instructed in stage one) and six large carrots peeled and grated. Discard the peel and place the grated carrots with the pulp. Add half a cup of honey and a quarter cup of powdered ginger or minced preserved ginger at the beginning of stage two.

The endless scenic rollercoaster



— Walking The Milford Track in Aotearoa —

by Alan Thomas Gray

Trentham, Victoria.

As a small boy living in Te Anau, a town on the edge of New Zealand's vast Fiordland National Park wilderness, the thought of exploring these wild places held a vital fascination. Walking the nearby Milford Track is a great way to slake any wilderness thirst.

THE most overused cliché in the New Zealand tourism industry is that the Milford Track, in the South Island's wilderness, is "the finest walk in the world". This description, for the record, was penned in 1908 by writer, Blanche Baughan. A *National Geographic* article in January 1978 headlined it "The Walk Of A Lifetime".

Whether or not these tags are true, the Milford Track endures as one of the most satisfying and spectacular wilderness experiences anyone could possibly desire. The Track is a four day, 55 km trip. It draws travellers from all parts of the world to experience the unique delights of bushwalking from the head of a lake up a mountain valley, over a steep alpine pass and along another valley to the head of a glacial fiord. All in a World Heritage Area of oldgrowth rainforests undisturbed since the last Ice Age. The annual rainfall is a mind-boggling 700 cm.

Our two hour boat trip to the head of Lake Te Anau to start the Track in the 1,212,000 hectare Fiordland National Park is aboard the *Tawera* — a craft in service for the same job since 14 February 1899. The 80 or so people aboard are a mixture of 'freedom' walkers (carrying their own food and bedding to use in the 'public' huts) and guided walkers, who stay in the fully staffed huts. This is the comfortable way to walk the Track: a hot shower, warm bed, and three meals a day mean that a light day pack is your only concern. Many of the walkers are couples enjoying this less strenuous tramping. Far fewer travellers would attempt this walk if it were confined to only those self sufficient in the wilderness.

Throughout New Zealand it's common to hear Kiwis mention that "one day" they plan to "do the Milford". The excited chatter on the boat makes it plain that for many, 'one day' has arrived.

Park management

More than 10,000 trampers (Kiwi word for bushwalkers) walk the Milford Track each summer season. Yet, one of the truly impressive aspects of the Milford Track management is that you always feel that you're one of a small group in the wilderness. There is little sign of human intervention. One of the secrets is that the National Parks Service tightly controls the number of trampers. No more than 40 trampers at a time can stay in the freedom walkers' huts, and the unguided walk has the same limit. And because the freedom and guided walkers stay in different huts staggered five miles apart, one party never sees the other, even though at any one time there might be 240 people at different points along the Track.

The start of the Track

A cloudless sunny day highlights the striking peaks on either side of the lake as the *Tawera* sidles up to the tiny jetty that marks the official start of the Track. Throughout this region the mountains are so sharp and stark against the clear blue skyline, that, compared to the rounded, weathered highlands of Australia, they seem like cardboard façades propped up with a bit of 'four by two'.

The very first mile of track plunges us into dense rainforest with the signature smell of the New Zealand bush. To Judith and I it seems so vastly different from Australian bush — no native animals, no eucalypts and no snakes lurking in the long grass. During the one mile walk to the second night's hut (the first night of the guided walk is at the Te Anau Hotel) our guide, Glenn, points out many plants and trees. Native black orchids, pepper trees (the leaves are a tasty addition to any soup), fuchsia trees, marble leaves, totara and Southern red-flowering rata are a few of the unique flora to identify and appreciate along the Track.

A comfortable sleep

Our night at Glade House is unbelievably comfortable considering we're in the wilderness and many days walk from any settlement. A diesel generator (a micro hydro unit would be better!) provides power. There are hot showers, hot meals, a glass of wine, and even (I'm serious) hair dryers in the women's dormitory! After a slide briefing and a few 'get to know your fellow walker' games, we hit the sack and wake next morning to another beautifully clear March sky.

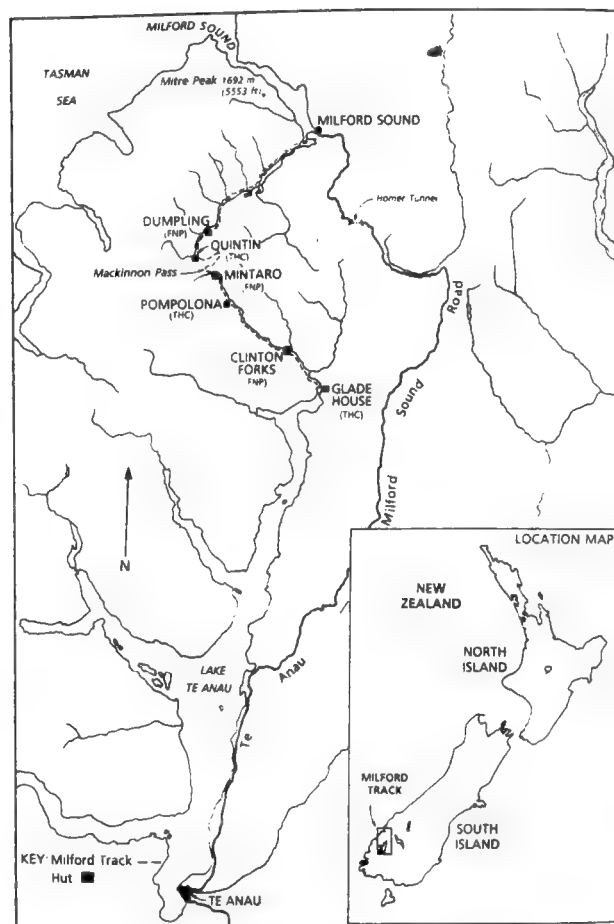
We set off into the forest and today's walk — ten miles up the Clinton Valley — spying at least 20 submarine-sized trout in the Clinton River, as well as wood pigeons, fantails, tuis (bellbirds) and bush robins along the way. The entire forest is a fernlike mass of green — many shades different to the Australian bush. The 'goblin moss' and 'old man's beard' which hang from most trees and branches, combined with a mossy carpet, make the scene feel like Fairyland. The tiny round leaves which litter the track from

the giant silver beech trees (*Nothofagus menziesii* — the same as those of South-West Tasmania) complete the picture, and you half expect a hobbit to pop out from behind a tree.

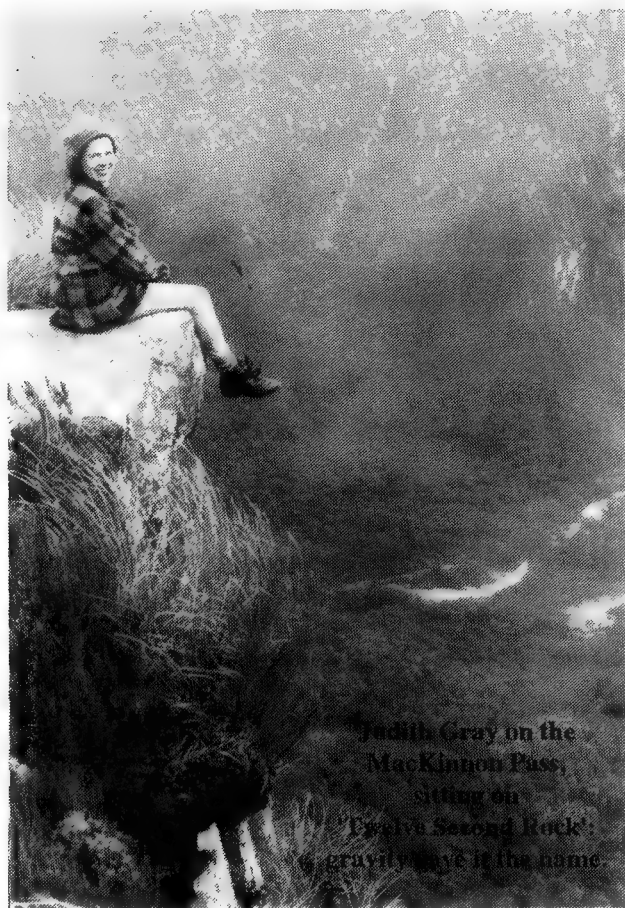
Every so often the canopy opens by the river bank and the vista of snow-covered crags simply adds to the vast majesty of the wilderness. The forces of Nature are evident in ways which make you grateful that it is possible for humans to experience this place. For instance, the freedom walkers' hut we pass today was washed away in a flood in 1989. Twenty seven inches of rain fell in 36 hours and the warden evacuated at 2 am, wisely taking the essentials: his home brew and the radio. A new section of track had to be built after this flood; the 500 metre section cost \$80,000.

The second hut

When we reach Pompalona Hut at the end of the day, it is a series of new huts built in five weeks to replace the previous lodge (that's right) wiped out in a winter flood several years ago. After a hot shower and mountains of tucker, we have another slide briefing. Glenn, our patient and informative guide, explains the caution needed for tomorrow's crossing of the MacKinnon Pass. We will climb from 1,900 feet to 3,800 feet in two miles of track, up 11 zig-



A location map of the Milford Track.



Judith Gray on the
MacKinnon Pass,
sitting on
'Twelve Second Rock'.
gravelly gave it the name.

zags. We will leave the protection of the treeline below as we cross the alpine (and potentially dangerous) pass to reach the head of the Arthur Valley on the other side, descending another 3,000 feet in three miles. We will then reach the Clinton Huts after nine miles of walking.

Tired but excited walkers peel off to bed around 8 pm anticipating an exhilarating pass crossing.

Attacking the pass

Another dry morning greets us as we all hope for clear weather on the MacKinnon Pass. Judith and I are so psyched up for the assault on the pass that we power up to the sixth zig-zag before realising that we've hit the alpine zone and it's not far to the top. We get a bird's eye view of remnant glaciers, alpine shrubs, and the superb Mt Cook lily — the largest buttercup in the world. It's still flowering up here — three months out of season — because huge lumps of nearby ice have fooled the plants, keeping them dormant well into February. A cloudy but rain-free morning is our greeting as we spy the large rock cairn memorial to Quintin MacKinnon — we've reached the top of the pass and nobody in the party looks hypothermic!

After hot soup and tea with our lunch in the pass hut, we head for the track down into the Arthur Valley as the roar of an avalanche echoes around the sheer canyon walls. The downhill section is more of an effort than the uphill. Careful

foot placement is vital to avoid hurting your ankles and knees. We reach Quintin hut at 4 pm and it's thrilling to know we've successfully walked in the footsteps of the Milford pioneers, and the Maori jade miners who almost certainly knew this route. Quintin MacKinnon was the first white man to 'find' the pass linking Te Anau with Milford Sound in 1888, and helped the Government build and maintain the Track as a tourist walk until his mysterious death on the lake in 1892.

The mighty Sutherland Falls

Many in our party walk the extra 40 minutes on a side track from Quintin hut to the mighty Sutherland Falls, while Judith and I fly over the falls and the pass in a tiny Cessna for a bird's eye view. The Sutherland Falls were thought to be the highest in the world when Donald Sutherland named and described them in the early 1880s. Sutherland was exploring the Arthur Valley with fellow expeditioner John Mackay, looking for the elusive pass. They came across a beautiful waterfall and an argument ensued about who should name the falls. They tossed a coin and Mackay won. The two explorers continued up the valley where Sutherland had the last laugh — the next waterfall they spied now bears 'the loser's' name. Sutherland Falls are 1,904 feet high, and the water drops in three leaps from the tiny Lake Quill which feeds it all year round.

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Tonight's hut — Quintin — is not modern but has more character than the other huts. The food and hospitality tonight are superb, thanks to entertaining hosts Marlene and Brian Hancock.

All dietary preferences are catered for, even one Japanese walker who needlessly requested "no tough meat". Most walkers are exhausted tonight and the banter is subdued. Marty, a walker from Canada, sighed: "I was so tired by the time I got to Quintin, I didn't realise I signed the visitor's book twice".

Next morning the generator starts at 6:30, and after yet another hearty breakfast, we're on the track by 7:45. Today's a long walk: 14 miles to the infamous Sandfly Point. The walk takes us through tracts of huge tree ferns, massive beech trees, and two of the most exquisite waterfalls you could ever hope to see.

Near the Mackay Falls is Bell Rock — a huge round boulder which is virtually hollow inside. You can crawl under it and light a candle, standing up inside the rock, listening to the rushing falls nearby.

We lunch by the truly spellbinding Giant's Gate waterfall — no one can take their eyes from it. Soon we begin dreaming about the hot shower, beer and restaurant at our destination: the legendary Milford Hotel.

The last part of the Track is when you really start to notice the blisters and the little aches and pains in your legs. Everyone in our group has made an effort to make friends, and a strong camaraderie develops as we share blister tales (a bit like fishing tales). Finally we reach Sandfly Point, elated and relieved to rest our feet. The launch whisks us across the fiord to the Milford Hotel, and we watch bottlenose dolphins gliding by the boat on the short trip.

The hotel room seems foreign — indecently luxurious after four days in the wilderness. That's until you realise how much you'll enjoy little things like the bottle of Radox thoughtfully left by the bath.

Dinner is a sumptuous affair tonight — all walkers receive a certificate and group photo to remind each other of the lousy jokes, the power walkers, the plodders, the fascinating tales of other people's lives, and the guy everyone tried to avoid (there's always one). Tonight brings the blissful sleep of satisfaction from exertion.

Cruising on the fiord

Milford Sound is a deep valley, carved out by glaciers until it met the Tasman Sea and formed an almost-hidden deep sea bay. Cruise ships regularly call here, but none can ever anchor: it's a thousand feet down in most places. The Milford Track was the only route out to the rest of the South Island settlements until, in 1953, the Homer Tunnel gave the tiny Milford Sound village its first road contact with the outside world. Even today, it's impossible to get radio or TV reception and all the power is generated by a hydroelectric unit placed in a nearby waterfall.

The last day of the 'Milford Track Walk Package' starts with a three hour cruise on the fiord. Sheer cliffs

ground out by the retreating mass of ice (glacier) make dramatic backdrops for the fur seals clowning on the rocks. After a mind-boggling endless lunch of fresh seafood, we waddle into the bus for a hair-raising trip through the Homer Tunnel and along the Eglinton Valley back to our starting point: Te Anau. Thrust back into a country town, so close to this breathtaking wilderness, I feel like saying to people walking down the street: "Look, forget your bus tour, forget the dry cleaning — just go and walk this Track!" Of course, I don't do that. We quietly disperse, and potter off to savour the headful of memories and images we'll carry around forever.



Sandfly Point, and the end of the Milford Track.

•The guided Milford Track Walk is open to reasonably fit people from 10 to 75 (the oldest known walker was New Zealand publisher A W Reed who accomplished the feat at 89). For more information contact a travel agent or write to: THC Milford Guided Walk, PO Box 185, Te Anau, New Zealand, and the ever-friendly track staff will mail you a brochure.

Freedom walkers can get booking details by writing to: Fiordland National Park Headquarters, Te Anau, New Zealand. Freedom walkers pay nightly hut fees of approximately \$15, which gives you a comfortable bunk bed in a public hut, toilets, and a gas ring for cooking. Be warned that the freedom walkers' places fill early for the November to April walking season. Air New Zealand sometimes offer cheap trans-Tasman airfares — recently as low as \$195 one way to Christchurch. For two or more people, 'rent-a-bomb' car hire is cheaper than public transport from Christchurch to Te Anau.

Mudbrick - the timeless shelter

Apart from caves, earth buildings are one of humanity's oldest forms of shelter. Many different styles using earth have developed over the centuries, generally determined by local climate and soil conditions, but one of the most popular adaptations has been the mudbrick (or adobe). As Peter Lees explains, these days much can be gained in costs, labour, energy efficiency, maintenance, sound proofing and aesthetics by building your home from this naturally charming material.

by Peter Lees

Porcupine Ridge, Victoria.

MUDBRICK construction has been used in Australia from the early settler days, but about 20 years ago, a new and significant interest in the style began to develop.

For many, using Mother Earth's natural soil stock was a logical step towards providing shelter. In Australia, carting conventional materials to isolated outback communities was — and still is — impractical and very expensive. Harsh temperatures dictated a need for thermal efficiency in homes because the occupants were mainly of European descent and conditioned to a cooler climate.

Today, adobe homes, particularly in Victoria, are making a significant impact on the housing market. Councils accept mudbricks as a valid building alternative. Most shires in the country have at least one adobe home within their boundaries. I have been honoured many times, with being the first to submit an adobe design to various shires throughout the States.

The Victorian Ministry of Housing also accepts adobe construction for those in low interest, home loan schemes, and will even supervise owner builders prepared to use their own labour.

Although mudbrick houses can be seen in many places these days (there are even open-home tours organised in many regions), a lot of people haven't had sufficient exposure to mudbrick as a respectable building medium, and so do not fully appreciate what a structurally wonderful and beautiful material it can be for the home environment. The

acoustic and thermal properties of mudbrick walls surpass the often limited and sterile qualities of 'conventional' materials used in equally 'conventional' homes.

Therapeutic combination

The natural beauty of adobe combined with other natural building materials, such as stone and timber, creates a harmony, charm and serenity that can be most therapeutic.



The union of adobe, stone and timber is the main feature; the furnishings merely complement the setting.

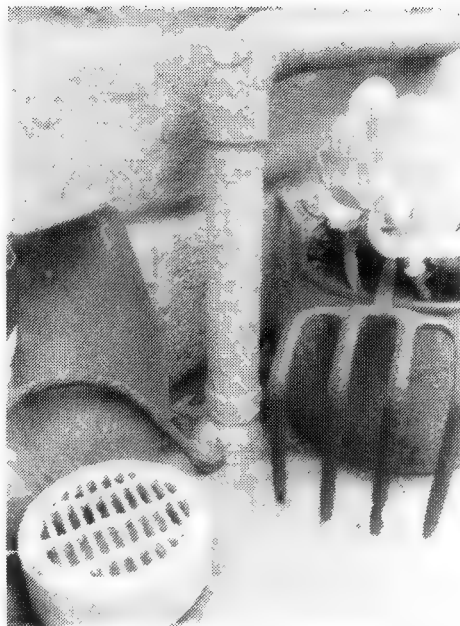
There is something special about a home that provides shelter and protection from the elements that, at the same time, is moulded from the very elements surrounding us. Adobe buildings should not be thought of as sub standard 'Third World' alternatives. They can compete with any other form of housing. An adobe home, handled with control

and taste, can offer a finish and feel that far transcends the average suburban house. Also, few people realise that the resale market value of a well built adobe home can be more than that of one built from conventional materials.

To stick with convention is seen by most to be 'safe'. There is a feeling that, if we are to be regarded as 'normal', we should set our sights on the brick veneer dream (the average, worker's option for housing). Particleboard, plasterboard and aluminium window framing seem integral to the whole image of housing.

Technology now plays an important role in the building scene but seems to leave little room for us to gain sensual pleasure from our relationship with our shelter, trading it instead for the aspiration of 'ownership'. We see 'beauty' in what a home can bestow through its mod cons, confusing this with the beauty the house itself can offer.

It is obvious that advertisements for display homes market only their commodious size and furnishings (isn't this what display homes are all about?), and not the inherent beauty of the building. Strip all the furnishings from the rooms featured and undoubtedly they would have about as much aesthetic interest as the inside of an empty fridge — a smooth and sterile plasterboard box. Shouldn't the internal structure of a home be visually attractive and radiate an ambience on its own merit, without furnishings? In my experience, mudbrick homes are usually chosen by those who are looking for, appreciate and relate to the basic beauty of the structure. The furnishings are seen only as a complement to the setting, rather than the focus.



A mud slurry over plumbing and other external fixtures will create a harmony with the wall.

Kiln bricks

The kiln fired brick is the next step in the development of an earth block but this doesn't mean that the kiln brick is superior to its 'humble' counterpart. Firing earth in a kiln consumes massive amounts of energy and natural resources and changes the earth physically and chemically. Kiln bricks are generally more resistant to physical abrasion than mudbricks, but they are not as thermally efficient. Mudbricks usually are bigger, so the adobe wall tends to be more stable than its double-brick, cavity wall counterpart. The overall strength and stability of brick veneer construction is in the timber framing. A cavity is not required in adobe wall construction.

Mudbrick walls will not wash away or crumble and are not dirty to touch; normally they are incredibly strong and can take loads ten to 15 times heavier than are likely. There are many different finishes (renders) that can be

applied to the walls, internally and externally, to make them water-, weather-, and 'dirt'-proof.

Because of their rustic nature, building with mudbricks is suited to the novice. Mudbricks do not need to be laid as 'accurately' as kiln fired bricks — you can, after all, only be so accurate with 'hand-hewn' material. That doesn't mean your workmanship can be slapdash, a caring approach is still required, but you can see why mudbricks are so appealing to the owner builder, whose numbers are rapidly increasing these days.

Using mudbricks can offer significant savings in terms of materials and building costs, particularly if the house is owner-built. Making the bricks is not complex, just labour intensive. The earth is free and you can use mud for mortar too.

Mudbricks can be moulded into any shape or size. They can be made simply with soil and water, or be stabilised with straw, cement, lime or bituminous emulsion for weather resistance. The choice and flexibility is tremendous. I have satisfied clients from the tropics of Queensland to the southern ramparts of Tasmania. The brick's thermal mass means that a comfortable environment can be created in most climates.

Mudbrick will never be everyone's first choice of a building material, but it should be seen as a viable option. With time and hard work, you can share in the satisfaction of making the material for your own shelter from your own environment.

In the next issue of Earth Garden, Peter will look at the various methods of making mudbricks and the different renders that can be used to 'proof' them.

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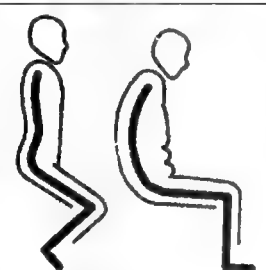
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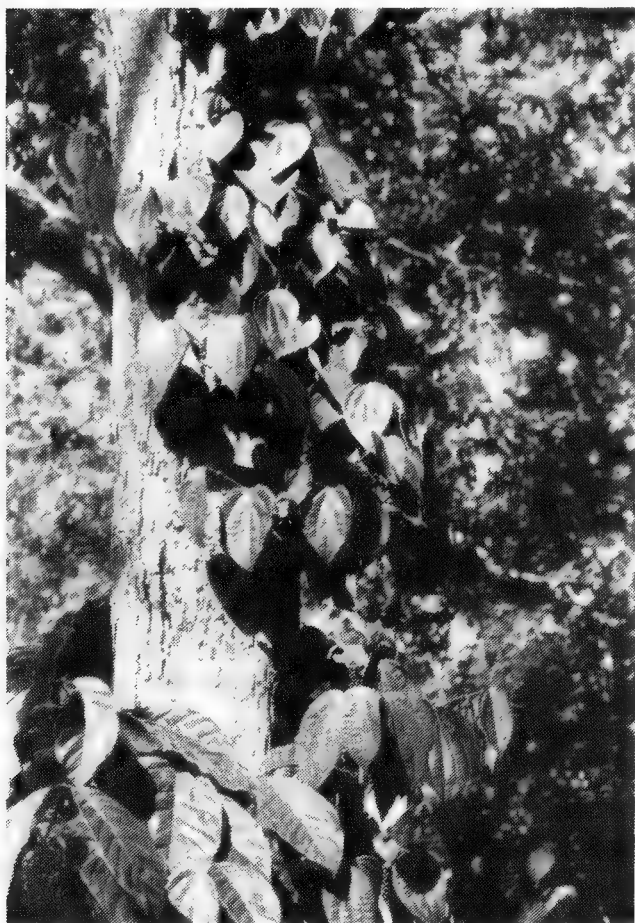
Natural pest control

The solution to the problems of pests faced by today's farmer is to be found largely in the design of the farm itself, according to John Prakesh Pereira. In this article, John uses the results he and his family have achieved after generations of traditional farming on their coffee plantation in south India, as an example of what can be done.

by Cheryl Meyer

Mitchell's Island, New South Wales.

JOHN Prakesh Pereira lives in a hundred-year-old house, built by the British, on a coffee farm in south India. The 80 ha property has been in his family for generations and is in the last of India's once wide-spread rainforests. Under the forest canopy, John grows mandarin and other fruit trees alongside the coffee plants. Pepper vines climb timber trees, and a host of herbs and vegetables are planted together. The ground is always covered by a deep mulch of fallen leaves and organic debris from the trees and plants. John's family has maintained a 'living fence' of timber trees and flowering shrubs along the border of the



Pepper vine growing up a rainforest tree.

plantation. John has never used a chemical pesticide, herbicide or chemical fertiliser in this ecosystem — there has been no need. Farm design is the most important consideration in controlling pests, according to John.

The Green Revolution

In contrast, John has nearly 40 ha of hybrid rice which he planted several years ago (along with hundreds of other farmers in India) as part of the 'Green Revolution'. The Green Revolution was an attempt by the government to encourage farmers to switch over to hybrid varieties of rice and other staple crops in place of native varieties. They claimed the hybrid yields were higher and that farmers' profits would increase. However, the hybrids depended on large quantities of chemical fertilisers to achieve these big yields and were more vulnerable to attack from insect pests than the native varieties. So chemical pesticides became essential and sold as part of the Green Revolution package.

Over the years John has seen the results of this modern agricultural approach.

"I would say the revolution has failed. I've got substantial evidence which proves that it (the Green Revolution package) does not sustain the hybrid varieties. Over the years the pests have become very resistant to the pesticides. What you could control ten years ago with one spray, you can no longer control with ten sprays," says John.

John was in Australia last year under the sponsorship of the Permaculture Institute, lecturing on the subject of natural pest control based on his research for a forthcoming book. John's interest in natural pest control began at university where he did considerable research on the use of pesticides on various crops for his two degrees in agricultural science and horticulture. He believes there is an urgent need for information on workable alternatives to using chemical fertilisers and pesticides on food crops — not only in India, but the rest of the world, too.

DDT in the Third World

The use of DDT has been banned in the Western World since the early 70s, yet John claims it is still easily obtained and widely used in India. When the Environmental Protection Agency began banning harmful chemical insecticides, the reserve stocks were sent to the Third World as 'aid'. A recent United Nations report stated that two

million people are poisoned every year from pesticides and 400,000 die, mostly in Third World countries. The reasons for this, the UN believes, are that inadequate protective clothing is being worn by those using the chemicals, and that the instructions for using the chemicals are often in a language not understood by the users.

The big question still remains. Why are chemicals the Western World considers too dangerous to human health available in Third World countries at all?

One answer rests with the Indian government, whose laws controlling the use of chemical pesticides are too slack compared with Western standards. The human health risks became obvious throughout the world in December 1984 when a deadly gas leaked from a Union Carbide plant in Bhopal, India, killing hundreds of the residents in a matter of hours. The killer, methyl isocyanate (MIC), is used in the manufacture of an agricultural pesticide.

How effective are most pesticides in controlling pests? Since 1935 the use of pesticides has risen by well over 100 percent. John Pereira believes that, "... the more pesticides that are applied, the greater is the resurgence of the pest. The pest population actually builds up. The farmer ignorantly goes on spraying more and more chemicals, but he is not controlling the pest, only making it more prevalent."

This reverse effect is due to some of the target insects surviving pesticide applications because either they

didn't actually come into contact with the chemical, or because of some individual hardiness. Through in-built mechanisms the insect's reproduction is stimulated. Ironically, in these cases, the pesticide acts as a kind of aphrodisiac. The next generations of insect pest adapt to chemical onslaught and so their numbers increase.

Insect resistance

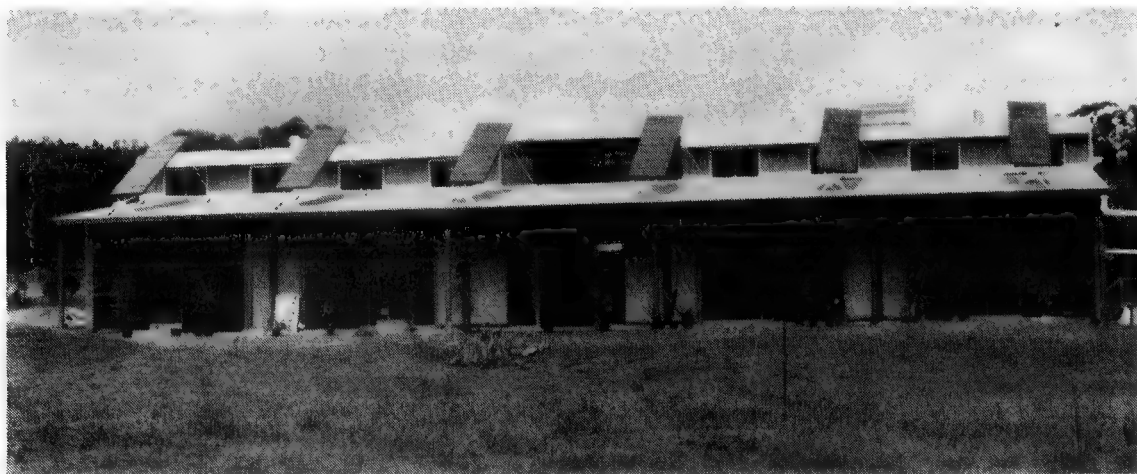
"Four hundred and thirty-two species of insects are now known to be resistant to pesticides," claims John. This number has risen sharply over the years indicating that the use of sprays has actually bred a tougher, more resistant enemy. The farmer's only recourse is to apply more and heavier doses of pesticide until the levels of poison on his crop and in his soil become a serious concern.

Of course pesticide sprays not only affect the harmful insects but also wipe out most of their natural enemies. Broad spectrum sprays are killing off the insects which could help us. Nature has provided us with insects, birds and animals that feed on the harmful insects and, in a balanced ecosystem, can efficiently take care of most insect problems.

John's research has uncovered ways to assist Nature's own pest control methods, save millions of dollars in chemicals and no doubt improve our health along the way.

He has collected information from scientific papers

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and journals from the past 100 years which supports the use of natural means for controlling pests. The material points to the dangers of chemical pesticides which ultimately contaminate the foods we eat. Tests have shown that residues of chemicals applied to plants as pesticide have been found in food. John believes that the link between disease and the food we eat cannot be ignored, despite the regulations that control the amount of such residue which is considered 'acceptable' or 'safe' for human consumption.

"Since most of these chemicals are systemic, that is, they get into the blood system of the pest, I find no reason why they shouldn't get into our system," John suggests.

When a pesticide is applied and the insect enemy annihilated, the residue doesn't just 'go away'. Once it's washed into the soil it often remains there for years, depending on the particular chemical. Residues can wash into waterways and eventually show up in our drinking water. In Australia certain organochlorines have been so widely used agriculturally and as termite repellent that doctors are looking at the possibility of chemical toxicity as the cause of birth defects, among other things.

John feels that the important question is, "...whether we should control insects at all and if so when?"

Large monocultures (planting of single crops over large acreages) are basically insect highways. Crops grown this way are difficult to protect. In Nature, plants rarely grow



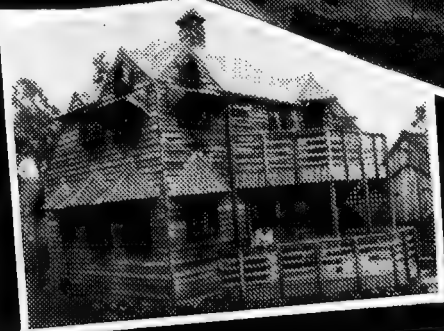
Ribbon and reflecting tape on a fence to deter birds from eating the grain from a wheat plot.

like this — there is always a diversity of plants growing together, and this is beneficial in, at least, three ways.

Firstly, most insects attack only one particular plant or species. Secondly, many plants in a balanced, diverse system attract the natural enemies of particular insect pests. Thirdly, many plants are themselves offensive to insects because of chemical compounds they add to the soil through their roots, or because of strong odours given off by the flowers. All these components work together naturally to control insect infestations.

Natural barriers

John has shown how proper planning at the outset



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can minimise and even eliminate insect problems that are likely to exist. He stresses the importance of a 'living fence'.

A post and wire fence may be effective for herding livestock but it does nothing to protect the pasture and field crops from insect pests. Various medium to tall trees planted along the fenceline with low flowering shrubs, herbs, and vines among them, will, after a few years, create a strong, virtually impassable barrier. It will attract wasps and nesting birds — natural enemies to many harmful insects. Such borders and shelter belts also attract humus-producing earthworms, which improve the soil and enhance crop production.

A few stones and dead logs left to lie create homes for predatory lizards and snakes and a particular beetle which feeds on harmful caterpillars. Fish stocked in dams will eat mosquito larvae while frogs and dragonflies attracted to the dams feed on flies and other pests. Ducks feed on slugs and snails. In a pesticide-free environment, spiders — one of Nature's most efficient insect killers — will move into the fields and orchards.

Hedge barriers

Barriers such as hedges can help to stop the spread of insects from one area to another, especially if the hedges include a mixture of natural insect deterrents — herbs such as marigolds, peppermint, basil, tansy, nasturtiums, pennyroyal, lavender, southern-wood, thyme, and sage. Indeed, why restrict these plants to a herb garden? They make excellent deterrents and should be scattered around and interplanted with fruits and vegetables.

Plants that thrive on organic matter are less vulnerable to insect attack so John ensures that his plants are well mulched. He also tries to use local varieties of fruits and vegetables because they are generally hardier than hybrids.

"The best varieties are those which grow in your region. These are what Nature has selected for that particular region over a period of thousands of years," John explains.

Observation is important in maintaining a healthy system. By planting a crop a month earlier or a month later and observing the results, it is possible to break a harmful insect's cycle.

Intercropping, too, can mean that insects which do infest one tree or plant or one area of the garden are unlikely to spread through the rest of the system. Sometimes, it is better to sacrifice one tree or plant than to upset the balance of the whole system by using a pesticide. Such a loss in a healthy system would be minimal. John maintains that a farm established along these lines would experience very little loss from insect attack.

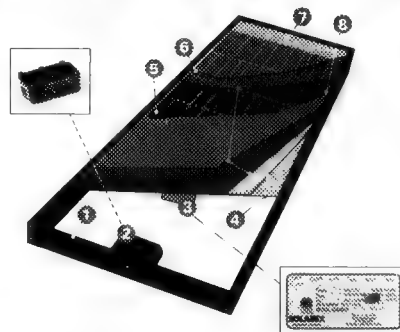
However, despite the best efforts and planning, insect plagues can occur from natural causes forcing drastic measures. However, John believes that plant-derived insecticides maintain an advantage over chemical ones in emergency situations. Research shows that although insects can develop immunities to a chemical pesticide, this is

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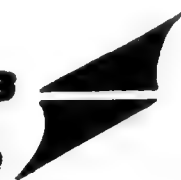


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- 1 tablespoon pepper
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- 1 tablespoon liquid soap (not detergent)

Simmer onion and garlic in water for one hour. Add liquid soap. Cool. The mixture can be stored in the refrigerator for up to a week.

generally not the case with a plant derivative, which has many different chemical components. This complexity makes a plant derivative more difficult for an insect to resist, and it can act on an insect in several ways. It may retard growth, sterilise the reproductive organs and affect the nervous system, all at once.

"It is very difficult for an insect to develop resistance when there are so many chemicals at work together," says John.

John's basic all-purpose insect spray (see panel) is very simple to make, and to modify if necessary. When a plague of caterpillars invaded his home, John quickly picked and ground some fresh chillies, mixed them with water, strained the solution and then sprayed it directly onto the

caterpillars. The insects died instantly and the solution on the walls and ceiling kept others out — a far preferable solution than using a chemical pesticide in the home.

No pesticides at all

Despite the many common plants and household substances that are effective deterrents to pests, John doesn't recommend using any pesticides, even plant-derived ones, "... unless, and until, you have your back against the wall. You can still intelligently control pests by other means." These means involve a shift in understanding of how insects work in a balanced ecosystem. We can no longer think of our environment as something to dominate and control.

The consumer is partly to blame for the development of modern agricultural practices. Our tastes for bigger, juicier, meatier fruits and vegetables on our tables all year round mean we get large and beautiful, but tasteless and nutritionally inferior food that has been grown under increasingly unnatural conditions. It comes to us from hundreds of kilometres away at huge cost, and is bred genetically to look and feel 'fresh' after days in refrigerators and on shelves. We must question where these 'gourmet' tastes are leading. Are we really getting the goods we want?

"You name the disease, we can produce it with the chemicals," warns John. "It's very important to get the message across to the consumers that it's up to them."



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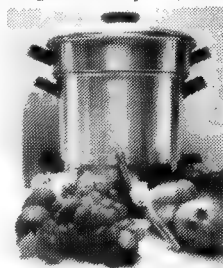
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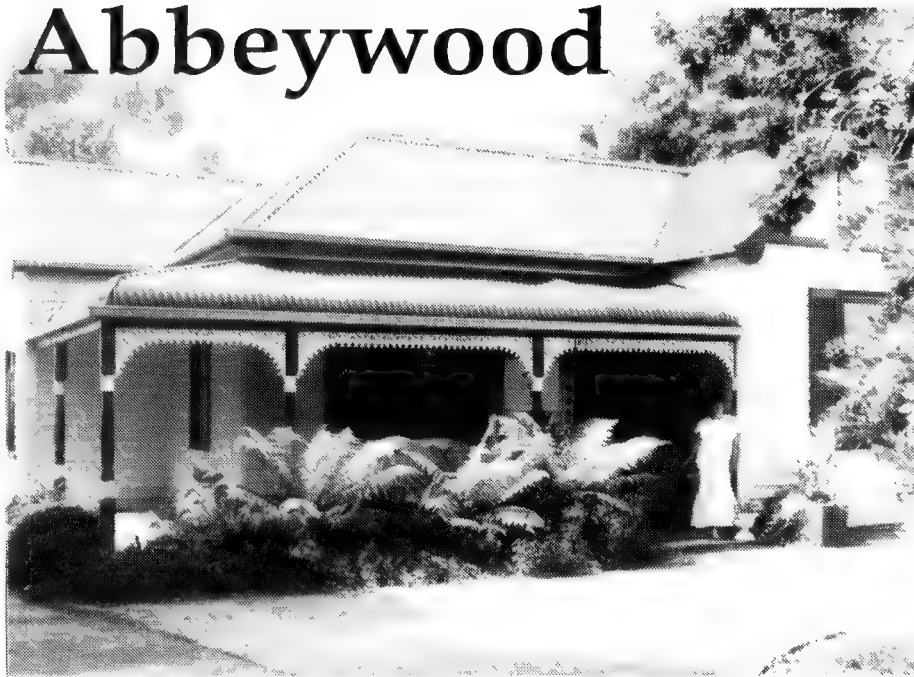
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Life at Abbeywood

Abbeywood is situated in the part of Gippsland known as the Latrobe Valley. All of the romantic tourist images that are associated with Gippsland, the rolling hills, cool wet forests and tall trees exist in the Latrobe Valley alongside its other well known feature — the industry. Scot and Trudi haven't let this distract them from creating their own haven.



by Scot Gardner and Trudi Reimers

Hazelwood North, Victoria.

ABBEYWOOD, the house, was built in the early part of this century and named after a place in England by the Firmin family who owned the surrounding 300 hectares of sheep grazing land. All but the house and five hectares was sold to the Australian Paper Mills about 30 years ago by the Firmin's eldest son who inherited the place but decided to move off the land. It must have been difficult for Mr and Mrs Firmin (senior) to see the family parted from their land and farming heritage.

A Dutch couple bought the place from young Mr Firmin. It was their heaven on Earth for many years until they decided it would be better living closer to town. (It was as if Henk had a premonition when he decided to resettle his wife, Dinny, in town — less than a year after they moved he died peacefully while paying one last visit to Holland.)

Trudi fell in love with Abbeywood about eight years ago when her husband took her to have a look at it. Dinny fell in love with Trudi and she knew that Trudi, out of the ten or so people who had made offers since it went up for sale, was going to be the one to 'inherit' Abbeywood.

Trudi did inherit the farm and before long it became obvious that it was her place. Her husband never seemed to have the motivation that she did, a difference that led to their marriage breaking down. After a seemingly amazing turn of events, Trudi and I are now sharing the dynamic soul journey we call 'Life at Abbeywood'.

Buried treasure

Abbeywood is an old house with surprises

everywhere. We've painted and renovated the outside of the house and in sanding back we found that the colours we chose were very close to the original. Almost every time we dig a hole or turn the soil, we find some little treasure — an old porcelain doll's head, ornate perfume bottles or pretty pieces of china. In one of the front rooms we pulled down a layer of wallpaper, a layer of particleboard, a layer of insulation, two more layers of wallpaper and a layer of hessian to reveal a fireplace and the original Baltic pine lining in almost perfect condition.

There are patches of old garden that give the home an established feeling that is difficult to create in a new house. Moving in to an existing home eliminates most of the



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Scot and Trudi in their birdproof, watertank garden.

since living near them, I have seen the light. Pine forests, though nothing like 'real forest', are far more Earth-friendly than pasture. Large populations of native and introduced animals live among the pines around Abbeywood. Roos and wallabies, emus, wombats, possums, owls, wedge-tailed eagles, falcons, kites, yellow-tailed cockies and even a family of sugar gliders inhabit this monoculture.

of useful materials from the pines: needles for mulch around strawberries (which grow well here); cones for kindling; small trees for almost instant wind-breaks; sawdust for an excellent compost component; and a heap of edible fungi

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and other plants. Things are always changing here. Two years ago the pines on the north side of the property were removed, giving us a beautiful view of Mount Baw Baw which is snow capped in winter.

Trudi and I have made many intuitive or 'gut feeling' decisions. I left my council job soon after Trudi had started working with a nearby chiropractor. It felt like the right thing to do. Sometimes following your heart can mean a sacrifice — usually of security — but for us it has always worked out. Trudi and I have certainly gone through an awakening since we left our jobs — and life just keeps getting better.

Clinic at Abbeywood

Trudi's job with the chiropractor activated dormant interests we both had in natural health care, so, initially, we studied massage together in Melbourne. We both worked with the chiropractor for a while and we've since made extensive studies in other areas of bodywork, counselling, hypnosis, and flower essences. We also set up our clinic in a spare room at Abbeywood.

The natural health industry is expanding rapidly as people become more aware of themselves and the Earth. We practise massage and other natural health modalities from home by appointment only so that we can maintain the

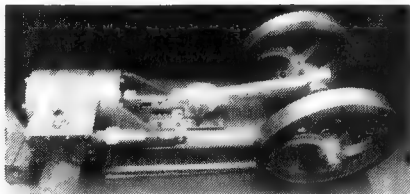
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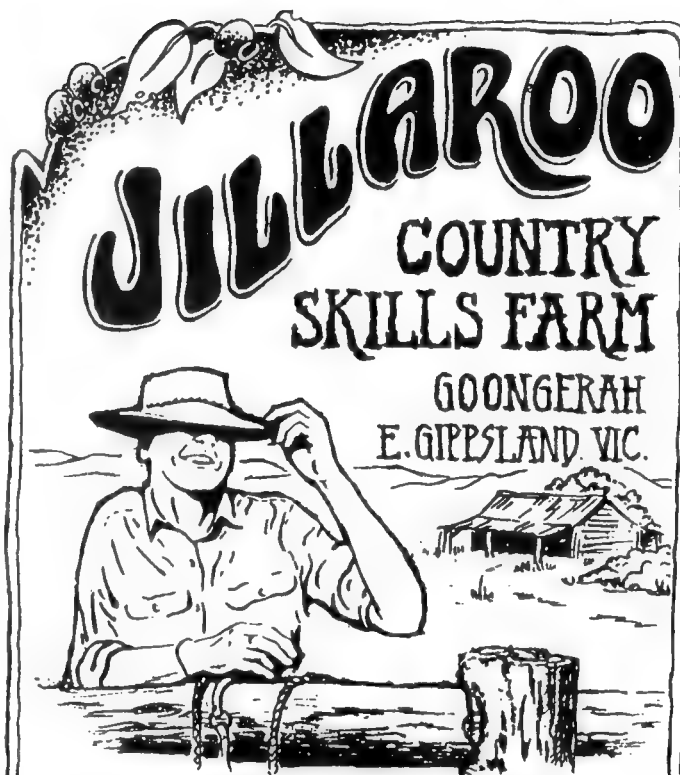
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privacy of our sanctuary. We've met lots of lovely people through our clinic and we handle a brisk barter trade, exchanging massage for hair cuts, car servicing, tool sharpening, the cutting and bailing of our hay, and power tool hire. We'll be buying a pure bred Jersey house cow from a family we met as clients and many other clients have enjoyed our professional help in their gardens. We had some frustrating times at the start of the business. Only seeing one or two people a week made us wonder if it would all be worth it, but sticking at it has certainly paid off — and in more ways than just financially.

Dealing in relaxation therapy and flower essences — safe and simple tools to help people deal with emotional difficulties — makes you feel like you're on the cutting edge of new medicine. Conventional medicine is only just beginning to realise the significant part emotions play in the generation of illness.

I would recommend practising natural health to anyone who has thought about studying it. It's uplifting and empowering for you and your clients and it's Earth enriching, if you do it with love and healing in mind.

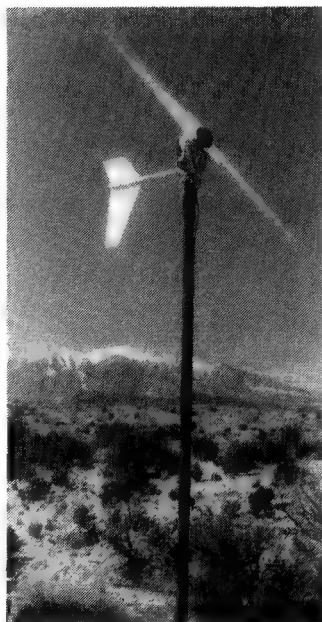
This summer has been particularly kind to the Earth

in this area, with lots of rain and cool, calm, overcast days. The soil here is an open sandy loam — unusual in this district — and everything we've planted has grown well, though we have to water a fair bit and mulch pretty heavily in the summer. Water is relatively plentiful in the Valley and at Abbeywood we have a small, permanent, spring fed creek (complete with eels!). Rainwater tanks complement the town water and there are a couple of good soaks that will make excellent dams.

Water tank gardens

We made our permanent vegie beds inside old galvanised water tanks cut down to about 30 to 50 cm deep. Holed water tanks are a dime a dozen on old farms and, if you're willing to take the junk that, no doubt, has accumulated in them to the tip, most farmers are happy to see the back of them. We fill the cut down tanks with mulch to grow potatoes or half fill them and plant other things through the mulch. These vegie beds are in part of a huge aviary (30 m x 15 m) and are completely protected by bird wire. The aviary is a legacy of the Dutch couple's passion for birds. We are happy to share with the birds but it's nice to have an area

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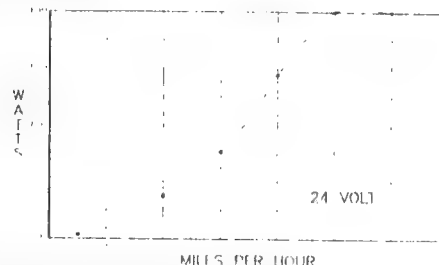
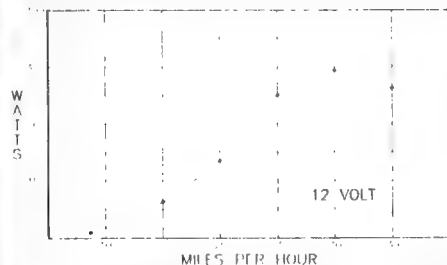
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that is bird (and chook) proof for strawberries and the like.

We built a large shadehouse last year. The western wall is a ringlock trellis with snowpeas and sugar snap peas growing on it. The peas don't mind the westerly aspect and have provided us with a couple of hands full of pods per plant as well as keeping the sun off our potted stock. The hothouse will be completed by winter so then we'll start to propagate a diversity of plants. We already have a large collection of herbs, flowers essence, cottage, fragrant and permaculture plants growing in the gardens around the house. We are expanding our gardens gradually and reclaiming the paddocks, trying to follow the patterns of Nature by using permaculture methods.

Animals love it here. Chooks, ducks, geese and peafowl have all bred well. Trudi has a great love of horses and we have two equine friends residing with us. Dommy the Arab is Trudi's riding horse — and best friend on four legs — and Sam is our three quarters Clydesdale cart horse. We have a converted milk cart to use to take our produce (and a

bit of novelty) into the local market seven kilometres away — with Sam's help.

A couple of years ago, we started planting trees as hedgerows along the boundaries of our paddocks. We protected them from the cattle and horses with an electric fence, but the cattle we bought seemed to be imports from the planet Krypton. They were immune to 14,000(!) volts of electricity, and could destroy a six strand barbed wire fence with their bare hooves. Not surprisingly, we no longer have beef cattle, but we'll soon have a house cow that will be an angel in bovine form — or else!

The 'before and after' of Abbeywood represents about five years of change. Five years of taking one small but well focussed step at a time. Making decisions intuitively helps to keep you dynamic — like Nature. You can be good at more than one thing if you choose to be diverse in your interests and actions — again like Nature, always alive. The more you choose what's right for Nature (the Earth's Nature and your own) the better life becomes, for you and everyone.

Tree planting in arid conditions

Planting trees on a six acre block at Gawler River, 40 km north of Adelaide, requires a special approach. Sandra describes the method and preparation needed for success.

by Sandra Morton

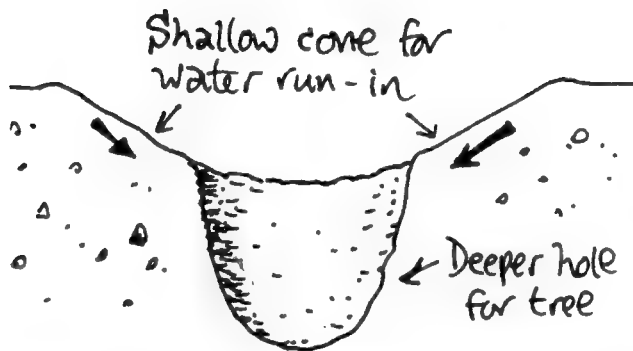
Mt Barker, South Australia.

THE six acre block at Gawler River is on a flood plain and so the soil is fertile, but the area is arid with an average rainfall of 400 mm. Winter is wet and cool, yet spring comes quickly with sudden heat and extreme drying out. In winter the weeds grow quickly; in spring there is a rush of thick grass and weed-growth to a height of two metres followed by a sudden drying out.

The owner works full-time and, with plenty of other projects on the go, knew there would not be enough time to keep up with the extremely fast weed growth in early spring. He realised that he would have to provide the young trees with as much protection as possible from weed competition, drought, wind, vermin and livestock.



Tony Stevens with early winter plantings. By September the person and plants will be submerged by grass and weeds.



For a greater chance of success, planting appropriate species at the right time is very important. Local species were used with the intention of creating windbreaks and to attract native birds to the property.

Planting began in April when the ground was moist and continued throughout winter until the weather changed. The idea was to make use of the winter rains but avoid the rapid weed growth that comes with the spring.

November in this part of South Australia is the known as the 'death' season and can be a test of whether the plants will survive or not. There is very low humidity, a fierce sun and dry soil that can dry up and kill the weeds and the young trees alike.

To overcome this problem, we planted the seedlings in a shallow cone made in the soil which acted both as a windbreak and water catchment. The cone was lined with old newspapers and then we placed a car tyre around it.

Earth seedling care

We did not to plant the trees directly from their small black plastic tubes into the ground but transferred them first to larger 150 mm pots. They were watered regularly and kept in a sunny place to encourage growth of a large root and

a small top. Although it means more work, it pays off because it gives the roots a better chance to establish and more trees survive.

Planting

Before planting we made sure the soil in the pots was reasonably moist so the pots came away easily and the soil didn't crumble.

To remove a young plant from the pot, place your fingers either side of the plant with the palm flat, turn the pot upside down and knock it so the soil comes away in a clump with the plant in the middle. Hold upright in the hole while

the soil is filled in around the roots and firmed down to remove air pockets. Plant the tree just below the surface in the shallow cone, which should be about one metre across. Planting too deeply may result in crown rot.

Protection

We packed the hole with sheets of newspaper. To make it easier to completely cover the soil all around the plant, put a tear in the longer side of the sheets and place wads either side so the plant emerges from the tear. Wetting the newspapers makes them easier to handle if it's windy.

The newspaper mulch will keep weeds back and the soil damp, as well as directing rain to the centre of the plant. It also provides a habitat for centipedes and lizards which eat pests. (Newspapers can also be a distraction when you are planting because of the interesting articles you come across.)

Placing a used car tyre over the hollow shows the position of the young tree and holds the paper down. It also protects the seedlings from rabbits and drying winds. (You can generally get used tyres from local service stations.)

With this protection, the tree can be left in reasonable safety. When the tree is stronger, you can remove the tyre.

If you are in an arid area with a weed problem in winter and early spring, and have little time for weeding, give this method a try. We have planted 300 to 500 trees per year this way and have had great success.

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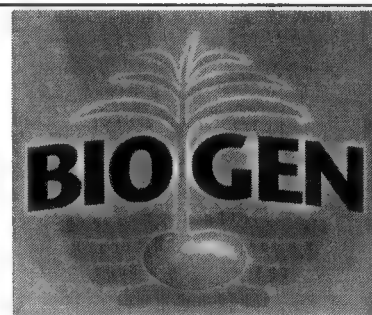
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Nasturtium (*Tropaeolum majus*)

A culinary delight

by Elizabeth Webley

Wynnum West, Queensland.

THE nasturtium certainly fits into the category of 'a plant useful to humanity', despite not always being defined as a herb. This perennial creeper is very adaptable yet so often misunderstood. Most people don't realise its potential, so it is largely ignored or disposed of as a nuisance.

The nasturtium is a trailing garden plant. It grows in a wide range of soils, preferring open sunlight and dry conditions, although they don't mind partial shade. They can be grown in rockeries, troughs, tubs or large hanging baskets. They were once popular as a low maintenance garden plant, but are no longer considered fashionable and they're usually found in unkempt gardens. Nasturtium will spread slowly onto adjacent land, but this spread can be limited if the plant is grown in a container.

Nasturtiums have many culinary uses, adding flavour and splashes of colour to a variety of recipes. The rounded, blue green leaves are five to 12 cm broad with the stalk arising from the centre. The flowers range from yellow through orange to red and have rounded petals and a long spur. Freshly picked leaves are high in vitamin C and can be chopped and added to salads, stews, soups and sandwiches. Salads can be seasoned with fresh flowers.

It is a companion to cucurbits, brassicas, beans, tomatoes, potatoes. The plant also repels borers and aphids, so it is useful to grow it near carrots, cauliflowers, cucumbers, melons and squash. The nasturtium was supposedly harvested by the British during World War Two for use as a pepper substitute. It does have a peppery flavour, but is not hot enough. Children will eat them. I put a vase of various coloured flowers on the table at a children's session to



brighten the room. Before the session was over, all that remained was a vase of stems. Children also love to nip the end off the spur and suck out the nectar.

The plant contains mustard oils so it is ideal for pickling. The seeds have a caper-like taste and can be pickled in salted vinegar. Use only small young seeds because older seeds have a hard inedible rind. Before pickling, soak the buds, flowers and seeds for about three days in a strong brine solution to increase their saltiness, which is naturally low.

The nasturtium is a member of the cress family and its flavour is similar to watercress, although much more delicate. Try a washed leaf in a sandwich with your favourite salad filling. The flower is delicious in all salads — alone or with greens, they add a splash of colour. You can use it with shallot, garlic, chilli and salt to make nasturtium vinegar. You can substitute nasturtium leaves for dock to make mince rolls (nasturtium leaves are smaller so more will be required). Scald the leaves before filling and cook in a small amount of oil, keeping them moistened with oil so they don't dry out. Nasturtium mayonnaise makes a decorative dressing for sliced tomatoes, cucumber salad or stuffed avocado. Mix about two dozen nasturtium flowers, 250 g of mayonnaise and six teaspoons of cream in a blender at high speed for one minute. Place in a jar and refrigerate until ready to use.

This wonderful plant has much to offer. As well as being a culinary delight, the nasturtium puts up a colourful display inside and outside the house. If you don't already have some in your garden, give some space to a plant or two. They will reward you well.

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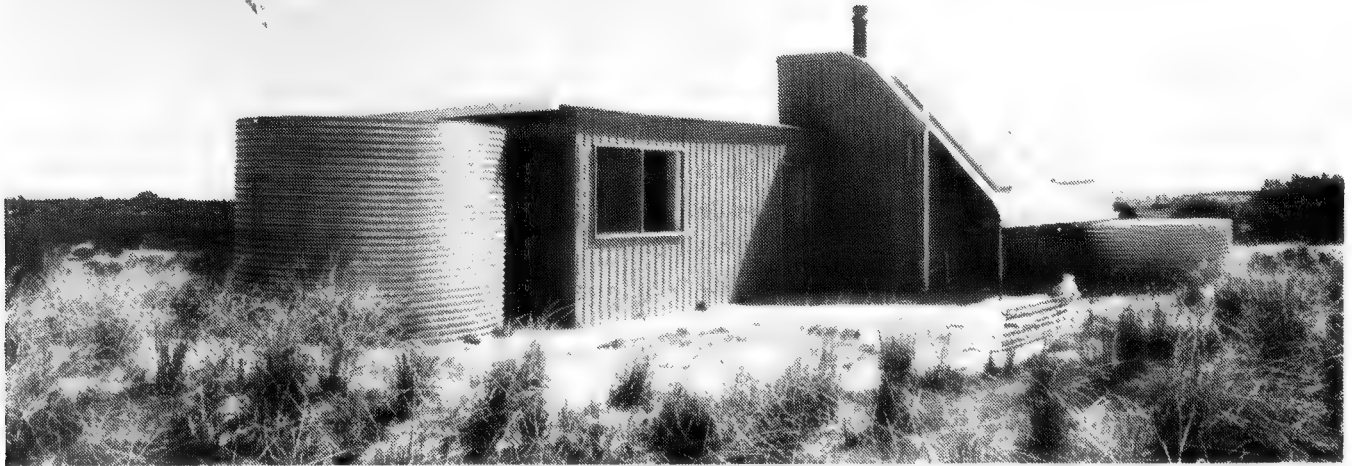
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Building my own self sufficient house



by **Emilis Prelgauskas**

Bridgewater, South Australia.

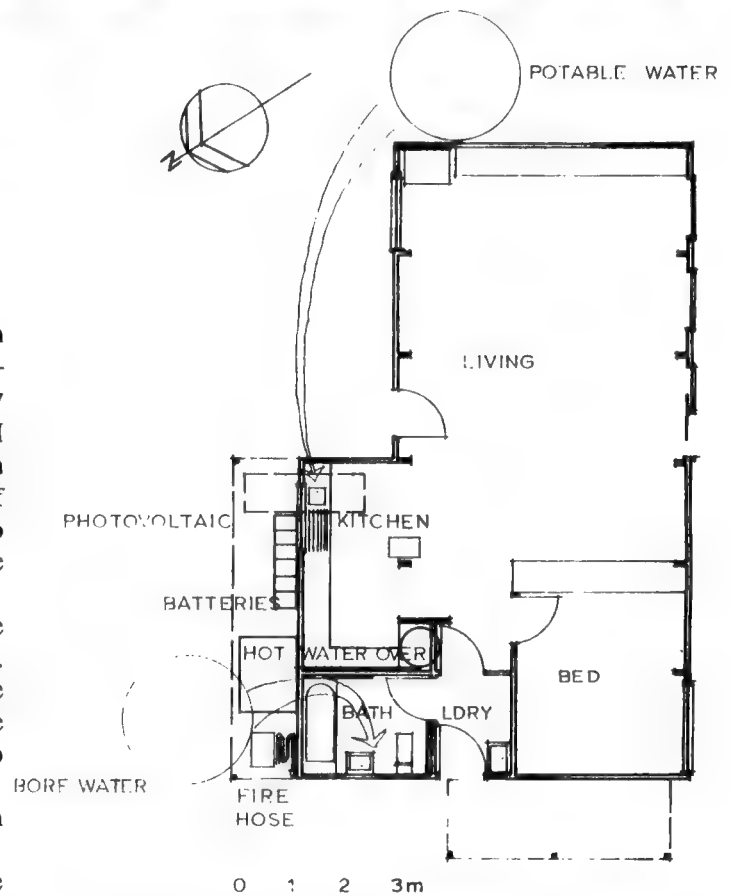
Emilis knew he needed a place to wean himself away from the 9 to 5 drudge — a place where he could work and play at the things important to him. In 1983, he found the place — 40 hectares at Monarto, about 60 km east of Adelaide.

WORK for me is about architecture and the design and construction of one of our basic needs — shelter. Play, principally, is gliding — my property is large enough to handle an elementary airstrip. I could express my other interest in environment conservation and self sufficiency here, too. I followed those aims of self sufficiency when designing my own house. There are no services to the land, and even today only the telephone connects us to the outside world.

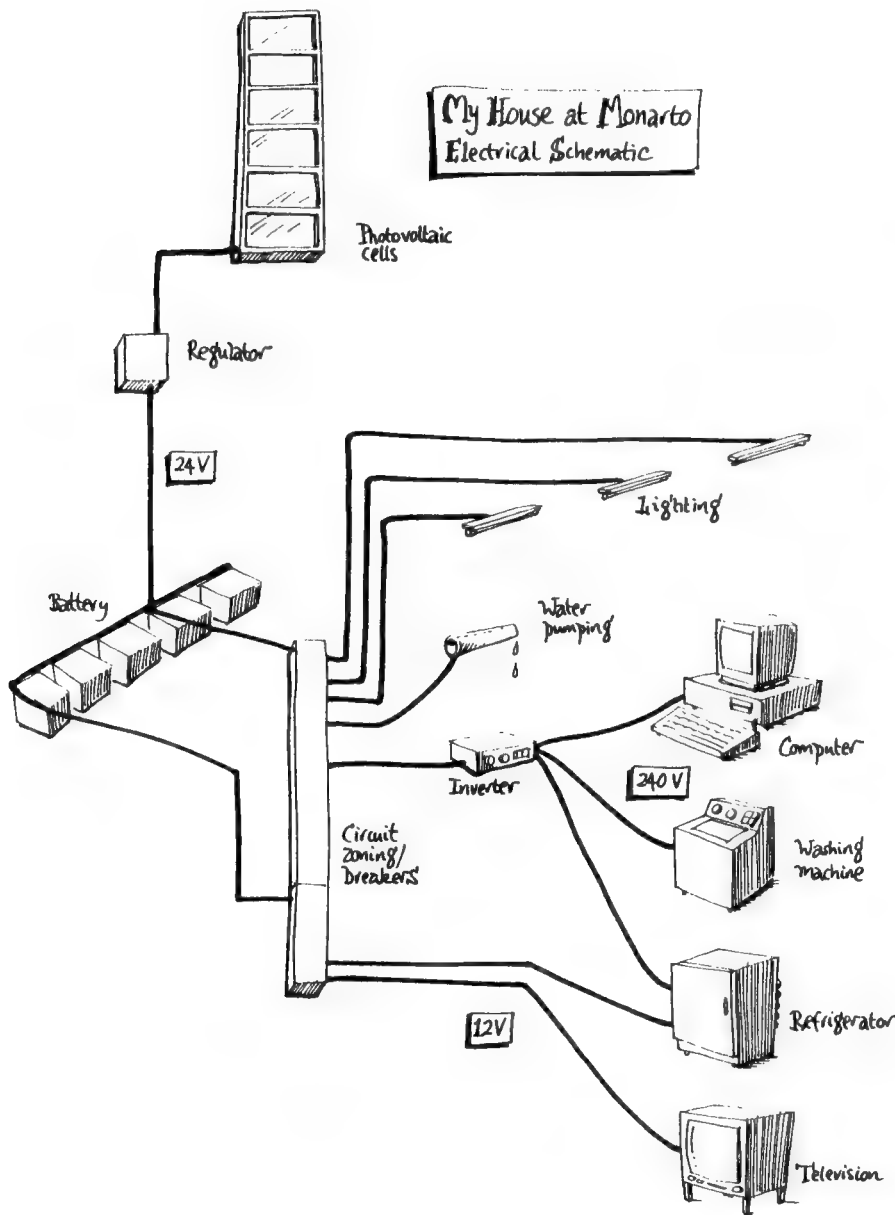
When I began, packaged photovoltaic systems were not available, so the project was a training ground for me. Today, systems are available off the shelf, tailored to a wide range of consumer needs. I had decided too, that my house would integrate passive solar aspects into its shell to complement the active system.

Money was in short supply. The single bedroom home of 80 square metres cost \$24,000.

With no power on-site, the construction sequence needed to be almost the complete reverse of a normal suburban residence. We needed to get the roof up and the electrical system running so that we could use power tools



The floor plan and services in Emilis's solar house at Monarto, in South Australia.



for the walls, floor and fit out. I planned on plenty of off-site prefabrication to make this possible. The finished product included the following component pieces:

- a steel main structure and external cladding;
- passive solar orientation, opening and roof alignment;
- an active solar photovoltaic power system;
- rainwater storage for continual supply.

Using steel materials allowed prefabrication off-site, and meant that the basic framework could be erected without using power tools, and the roof could be built before the other parts of the house. I incorporated steel cladding so the completed shell would cool rapidly after the heat of the day. The heat is excluded from inside by the sarking, insulation and thick 'Firestop' plasterboard linings. This construction system avoids the long cool down periods common in brick and stone structures, which can become oppressive in the long heat spells of summer. This approach

was practical, too, with the house facing afternoon sea breezes from Lake Alexandrina, about 20 km to the south.

Thermal convection

I included passive systems in the house to extend its cooling functions. There is a raked skylight to the kitchen and bathroom. With a north wind, the low pressure (venturi) effect of the wind at the skylight draws air out from inside the building, and this in turn draws cool air into the house from the south face. For calm days, I built a sun court at the northern end to generate thermal convection. As the external, warm, north face air rises, it again draws in the cooler air from the south face. I incorporated large, opening windows so that, in extreme circumstances, the lighting and the kitchen stove would force an up-draught through the skylight, creating cooling ventilation in the spaces adjacent to the windows. These passive systems allow the house to function without air conditioning or mechanical ventilation.

In winter, the centrally positioned stove can heat the entire home because of the open layout that combines into one area the studio, living, dining and kitchen spaces. The active solar systems I

have included allow electricity to be generated, stored, distributed and used with the most appropriate voltages to each appliance (as shown in the schematic diagram).

I divide the water system into drinking and sullage water, using separate pumps and circuits, so during drought undrinkable water can be used in the bathroom and laundry. Water is heated by a solar array on the roof backed up by a stove water jacket, and in extreme situations, a generator lead. As I intended, the house is self sufficient in good and bad times. The effectiveness of the systems depends on my hands-on involvement. Opening appropriate windows, closing curtains and remembering to check the water level in the batteries all contribute to comfortable living.

Furthermore, I am independent of power failures, services, tariffs and the vagaries of the centralised power authorities which are working with an ageing infrastructure, changing consumer demands and depleting fuel supplies.

Learning the ropes

— Part two —

In EG 79, Graham described the common materials used for making ropes. In this article, he looks at the way ropes are made and why.

by **Graham Hardy**
Townsville, Queensland.

WE have been making ropes for centuries. Rope has been found in the tombs of ancient Egyptian kings which is similar in style and quality to the sisal and Manila used now. Pacific and Torres Strait Islanders have always made plaited ropes from grasses and coconut fibres. Just as cotton and wool fibres are teased, twisted, and spun on spinning wheels to make a long unbroken yarn, so are the fibres in ropes. The spinning and twisting, however, are taken a few steps further.

Originally, commercially produced rope was made in long sheds, so the length of rope was determined by the length of the shed. The fibres were spun into yarn and wound onto large bobbins or reels. The yarns were run out to the length of the shed and twisted into strands the right thickness to make the intended diameter of rope. These strands were then twisted together in the opposite direction to the twist of the yarns to form the rope.

Apart from the fibres, it is the way ropes are made — the lay — that differentiates one from another and determines how they should be used. Ropes, of both natural and synthetic fibre, are still made this way, but now 'high tech' machinery means the length of rope is no longer determined by the length of the shed.

The main difference between synthetic and natural

fibres is the length of the basic fibre. Generally, synthetic fibres run the length of the rope. This helps the rope's strength because there are fewer, if any, twisted joints to come apart when the rope is wet or under load. Natural fibres, (Manila for example) are seldom more than a couple of metres long.

Types of lay

There are several types of lay, but here I'll deal just with the three basic methods. The first is the 'plain' or 'hawser' lay (*figure 1*). The yarns in the three strands are twisted in a left hand lay. The strands in the finished rope, however, follow a right hand lay. In either natural or synthetic fibres, this rope has a good balance of elasticity and tensile strength and can be spliced and knotted fairly easily. For these reasons, it is a popular rope and easy to obtain.

All ropes can be laid 'hard' or 'soft', which means they are twisted tightly or loosely. Hard-laid rope is reasonably abrasion resistant and stiff, while soft-laid rope is easier to handle, knot and splice, but not as abrasion resistant.

Figure 2 shows the 'shroud' lay, and is easily recognised by the four strands laid around the plain-laid inner core. This type of rope is often used for making cargo and scrambling nets, because it is possible to get two strands on either side of the mesh joints. Generally, the strands in four strand rope are not as thick as those in three strand rope of similar diameter, and therefore not as strong.

Plain or Hawser-Laid

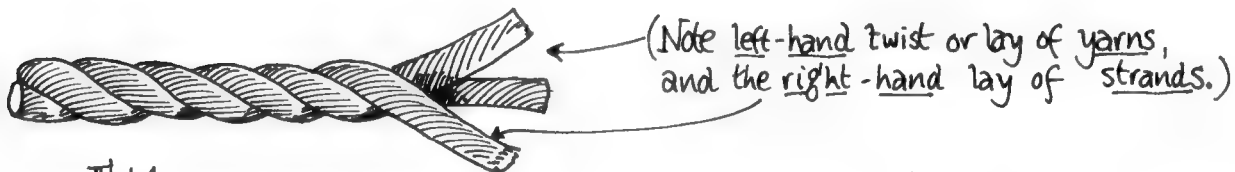
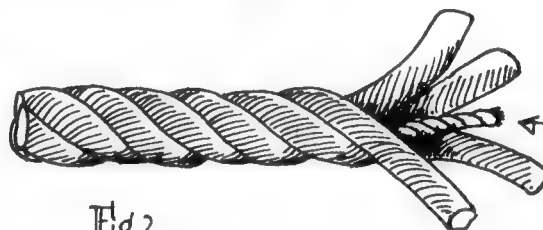


Fig.1



Shroud-Laid

(Looks a lot like Plain-laid until strands are parted.)

Plain-laid core

Fig.2

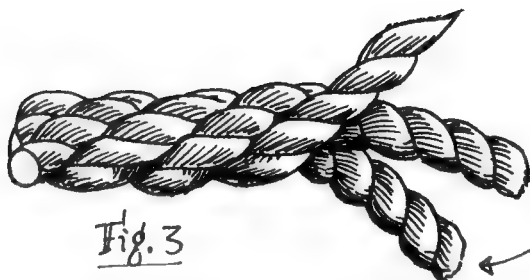


Fig. 3

Cable-Laid

(Note the three-strand hawser-laid ropes wound in a left-hand lay.)

'Cable-laid' (figure 3) rope, is made up of three plain-laid ropes of right hand lay, twisted in a left hand lay. This rope is strong and elastic and good for jobs where heavy and sudden shocks are expected, such as with towing cables or mooring lines.

Rope care

I still remember the advice my uncle gave me when I was a lad: "If you want to keep your ropes, mate, keep 'em up, keep 'em clean and dry, keep 'em out of the sun, and keep 'em locked up, or somebody'll pinch 'em." It was simple advice that still holds good today, even with synthetics (for

it refuses to stay in place, use a piece of sticky tape). Moving towards the end, wind the thread tightly and closely around the rope. Wind it so it follows the lay of the rope, to keep the rope's lay tight. When you've bound a length roughly (more, not less) one rope's diameter, cut the thread, pass it through the loop and hold it tightly. Pull the other end of the thread in the direction of the arrow, until the running end of the thread is pulled right under the whipping (figure 5). Trim off the ends with a sharp knife, and it's finished. With practice, you'll surprise yourself with how quickly it can be done.



Fig. 4

Common Whipping (1)

which it was never intended). Even ultraviolet stabilised synthetics will last longer if treated carefully. Grit, sand and mud cut through the fibres of any rope. So does salt. Foreign bodies in the rope, such as steel shavings, thorns or glass, can play havoc with your hands as well as the rope. Acids and oils do not affect most synthetics, but they will destroy natural fibres, and probably your hands. Wash dirty ropes in a mild detergent and rinse them thoroughly in clean water. Hang them up to dry in an open, shaded place (under a tree is fine) and allow them to dry thoroughly in the breeze.

Whipping

Whipping, or binding the ends is an important part of rope care, because it stops them fraying and unravelling. Your rope will last much longer, and you'll find that your knots will be safer and easier to tie. Use the method shown in figure 4 for a short whipping of about one rope's diameter. Use linen thread, or terylene cord, about one mm diameter.

As shown, make a loop near the end of the rope (if



Fig. 5

Common Whipping (2)

Longer whippings

The method shown in figure 6 is for longer whippings, or if you're using finer thread, where it is not possible to pull the loop through without breaking the thread. (I use this when repairing my fishing rods.) Instead of the loop, start with a small tuck, and bind over it. When you get to within, say, 10 mm of the end of the required length of binding, take a short length of thread, about 100 mm or so, and double it over. Lay this in the path of your whipping and bind over it. Then finish off as shown in the first method. I have found when binding this way, a fine piece of stainless steel trace wire works very well as a pull wire and doesn't snap in tight binds, as cord might.

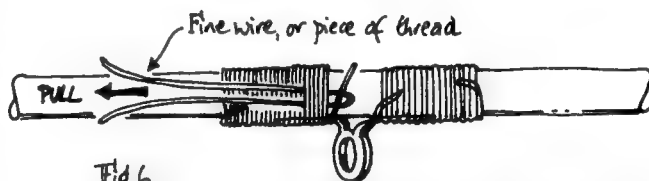


Fig. 6

Variation of Common Whipping for long windings or fine threads such as fishing rods.

By the way, stainless steel or bronze welding rods, two to three mm diameter, make really good runners for a fishing rod if you can't get the correct ones. Wind them around a bar, or a bolt, of the diameter that you need. Twist the runner into alignment with a pair of pliers, cut off the ends to length and flatten them with a hammer. Smooth off any sharp edges and bind them on as described. I made a temporary repair job like this about six years ago. It is still 'temporary' and still catching fish. Oh well, maybe soon.

In the next part of Learning the ropes, Graham will look at knots and how to tie the right one in the right rope for the right job.

•Earth People Write continued from page 7

Land in the Adelaide Hills

Dear *Earth Garden* readers,

We are moving to the Adelaide Hills soon and we would like to hear from other *Earth Garden* readers wherever you are in South Australia. Can anyone advise us of a suitable spot to settle in the hills? We are looking for land to buy, large or small, with or without a house, which is unpolluted by chemicals and pesticides and where we can garden organically and practise self sufficiency. Looking forward to meeting fellow Earth Gardeners and sharing down to earth ideas.

Greg, PO Box 162, Cannington, WA, 6107.

Free ranging at last

Dear Alan and crew,

We have finally made the big break and are suffering no ill effects of the transition from Perth suburbia to a very small south west coastal town. After being smitten by the beauty and serenity of the area we had no hesitation in buying a block of land on the outskirts of town with the intentions of starting a nursery.

We both felt a bit like battery hens in suburbia: we had lots of ideas but no room. We have adapted nicely to free range living and the ideas are growing accordingly. There is a lot of work ahead of us but we get immense pleasure from our own hard work and initiative.

Your magazine will be a wealth of information for us both and we wish to encourage family in our old home town, Canberra, by giving them a gift subscription. It is also high time we supported the tree tax and subscribed directly ourselves. Cheers from,
Robyn and John McCarthy, Bremer Bay, WA.

Progressive stages

Dear *Earth Garden*,

I came across a back copy of *Earth Garden* the other day (a 1985 edition). I did say back copy. I have no idea where it came from. I believe it was fate. My

husband and I live on five acres on the outskirts of Sydney. We currently have the property for sale with the view of moving further into the country. Our long term goal has been to escape the pressure of city living. For the past five years we have both had high pressure jobs, causing me some illness but we seem to dig ourselves into a hole in the city with the need for so many material things making it difficult to get above water again to call it quits.

Our two sons have grown now and are ready to make their own lives (in the city). Our dream is for an easier life and semi retirement (a home amongst the gum trees). We are not naive enough to think it will be easy. We turned our present property into quite a beautiful place from a non-productive dirt farm.

We rebuilt, renovated and planted. We have a lovely veggie garden — all organic, a chicken run, horses, fruit and nut trees and fish. We are far from being self sufficient but close enough to whet our appetites to the pleasure it brings, and a lot closer to our goal than when we were living in densely populated suburbs before.

We would like to have somewhere further in the country for them to come, to unwind, take a deep breath and remember the peace and quiet. You can help us by sending me *The Hard Times Handbook*. We still have plenty to learn and lots of time to learn it in. Thanks for your magazine, we think it's wonderful,
Bob and Bev, Orchard Hills, NSW.

20 years up the Earth Garden path

Dear Alan and company,

I'm pleased to hear that you're all happy in your work! This is a letter about the old days. I started buying EGs when they were apparently only available from one of those alternative bookshops in Sydney's Haymarket area. I first came across *Earth Garden* 2 or 3, so had to locate the back copies (and I have continued to collect them to the present day).

This was about the time of the Aquarius Festival which started things at Nimbin. It was also the time of the

beginning of the movement 'back to the land' and 'alternative' just-about-anything, even Alternative Pink Pages for all those things that just wouldn't be in the ordinary Pink Pages (now the Yellow Pages). I suppose it was inevitable that *Earth Garden* would appear about this time, in this climate. As Jackie French says, *Earth Garden* was a materialisation of a lot of dreams and imaginings for a lot of people.

Looking back it all seems very primitive in comparison with *Earth Garden* of today. It was all 'soap and bread' you might say, and 'move out'. Very little high tech stuff and plenty of mudbricks too. Photovoltaic panels were yet to become cheap enough to be an acceptable alternative and so wind generators were thought to be supreme. It all seemed so simple; get away from the hustle and bustle — find a place in the country — become self sufficient. Yes, but self sufficient in what? *Everything?*

Time was yet to tell the tale of flogging your physical guts out for the rest of your life trying to coax everything you needed out of your patch of an uncompromising and indifferent ecosystem. Or the story about isolation and emotional self sufficiency (didn't think about that one did we?). Did we really *want* to have empty pockets for evermore, always having to pass up that great bargain for want of working capital (and who would lend *you* money?). Questions that never were asked in advance back in those 'good' old days. Time has shown me that being self sufficient is capital intensive. Unfortunate but true. This means for mostly everybody a long period of raising capital, something else that we conveniently overlooked back then.

Still some people went and did it. They tried all sorts of things, and eventually found out what they really wanted — and the pitfalls — and the good stuff too! I remember that I felt that co-operatives and communes could well be the way to go. I organised several 'talk fests' on this subject so interested people could get together at the Glenfield Farm at Casula. I was

long on expectations but short on words and ideas, but most people seemed to get something out of these days by exchanging ideas or at least names and addresses.

I am intrigued that 20 years on, people are still discovering *Earth Garden* and finding it so attractive. These days conservation of all sorts of resources, organic farming and more of the sort of things we only used to find in *Earth Garden*, can be found presented in many 'mainstream' sources such as radio programs and newspapers, and yet *Earth Garden* keeps rolling along.

Long live EG!! Best wishes,
Laurie O'Donnell, Uralla, NSW.

Dear Alan,

Subscription time again and enclosed is my cheque for a large T-shirt also. My garden is flourishing and I have an abundance of fresh organic vegies and free range eggs. I swap them for bread and milk at the general store. You must have an inner strength that keeps you going. I'm sure the magazine is a lot of work — good work at that. Love, peace and happiness,

Kaz Reid, Tucabia, NSW.

Termite battlelines

Dear new friends at *Earth Garden*,

I live in a suburb which is only a regular stone's throw from the "great" city of Sydney. How then do I have a house which becomes a little more tumble-down each day, due to the presence and activity of the dreaded white ant or, as he is known at our place, "termitus bastardus"?

We have tried heaps of different remedies, mostly involving arsenic or heptachlor. As a former employee of a major pest control firm, I have a little knowledge of organophosphates and the other chemicals used in pesticides and rodent control.

I don't approve of these methods, but nobody I've ever spoken to about the problem can suggest any other friendly method of disposal. Perhaps some of our new fellow readers have a solution. Maybe you have covered this subject somewhere in a back issue.

Thank you in anticipation. I remain on tenterhooks, your new chum,
Hedley R Buxton, 12 Gowrie St, Newtown, NSW, 2042.

Dear Hedley,

Yes, we have covered this issue in previous editions. Bob Rich wrote an article in EG 74 which will interest you, as well as a book review of Building Out Termites in EG 76. On page 49 of this edition of Earth Garden you will find an advertisement from "Granitguard", a company which could solve your problems. We met the Granitguard people at the recent Third National Environment Expo in Melbourne, and were very impressed with their information. Good luck!

—Alan.

Caretaking in the Murray Mallee

Dear folks,

Hello. Here, between Waikerie and Morgan along the Murray in South Australia's Riverland (Murray Mallee to me!), my wife (Ruth) and me (Tresh) live on a small 100-odd acre property. We live in a bushy sort of dwelling with garden, duck pond and ducks, Mr Ferret and bantams and two little dogs. We are hoping to go away for at least four weeks in June/July.

We would like to know if there is a couple or capable single person who would like the sunny, drier winters of the Mallee, and to look after our place. It can be cold at night and our house is rudimentary — no power, but warm fires. Work is also a probability in nearby orchards and vineyards. This could probably be arranged before arrival.

General upkeep of the place and looking after the animals and the garden is required (keeping them alive and appreciated). We would love to have a long sought-after break to catch up with our spread-out family and so on, and would love to leave the place in capable hands. So can we make contact with someone who likes to live simply? Your own vehicle would be handy, though we'll probably leave our sometimes

temperamental ute at home to use. Thank you. Love from,
Ruth and Tresh, PO Box 732, Waikerie, SA, 5330.

Kuranda correspondent

Dear *Earth Garden* readers.

I am looking for a vegetarian penpal (male or female). I am 48 years. I am interested in yoga, meditation, vegetarianism, New Age philosophy, the environment, nature cure, painting, classical guitar, dancing, writing, crafts, sailing, organic gardening, travel, meditation and universal peace. Love and peace,

Joanie Byrnes, 1/20 Coondoo St, Kuranda, Queensland, 4872.

Soy milk powder supplies?

Dear *Earth Gardeners*,

Do you know of any reputable, Australian supplier of good quality, soy milk powder? I have a baby and a young son who are allergic to cow's milk. We presently buy cow's milk powder for the rest of us and soy milk in litres for these two boys, however it can get quite expensive.

Particularly with soy milk, companies seem to like adding a lot of extra things like sugar and salts, which worry me some for the boys' health. Yet, at the same time, the milk has to be palatable. Not an easy combination I appreciate. Thanking you in anticipation of any help you can provide. Sincerely yours,

Mrs Katherine Adams, 43 Sherringham Rd, Mt Pleasant, NSW, 2749.

Queensland correspondence school?

To the readers of *Earth Garden*,

Would any of you please write to me if you know of a school of correspondence for a year one boy? He has been a yo-yo with the Queensland Education Department. They refuse him correspondence on any grounds unless his family pays \$1,000 per year for lessons.

T Hewham, Mt Garnet, Queensland, 4872.

EARTH GARDEN REVIEWS

Edited by Judith Gray



The Australian Self-Sufficiency Handbook **'A survival guide for the 21st century'**

Edited by Keith & Irene Smith and Alan Thomas Gray

Published by Viking O'Neil,

340 pages, large format paperback.

\$22.95 posted, from *Earth Garden*

(see page 64 for ordering details).

The long-awaited "best of *Earth Garden*", including new and previously unpublished material, has finally hit the streets! This is a complete manual of self-reliance to inspire confidence in anyone who wants to make a new start. It is possible to change your lifestyle — and not just think about it. *The Australian Self-Sufficiency Handbook* will show you the simple and practical skills you need. Besides, why pay someone when you can get more satisfaction doing it yourself? We think the book is the perfect way to celebrate *Earth Garden's* 20th anniversary.

The information here is "coal-face *Earth Garden*": written from first hand experience by two decades of *Earth Gardeners*. The "how to" articles are by those who have made mistakes as well as made things work, and there is an incredible range of topics covered. What's unusual about this book is that it presents all the basic, practical information in one value-for-money text, so you don't need to go buying ten specialised books. It really is a self-reliance manual for establishing sustainable lifestyles. We hear politicians *talk* about such things, but here is the fundamental text to help you *do* it.

Grow your own food, generate your own power, ensure a reliable water supply, build your own house, raise your own stock and learn basic "make it yourself" crafts. These are the five general section headings for the articles. There's everything from soap making to building in stone! The book is generously illustrated — in fact its 340 pages are overflowing with photos and line drawings.

Most *Earth Gardeners* want to respect the Earth and live more economically. And the spiritual

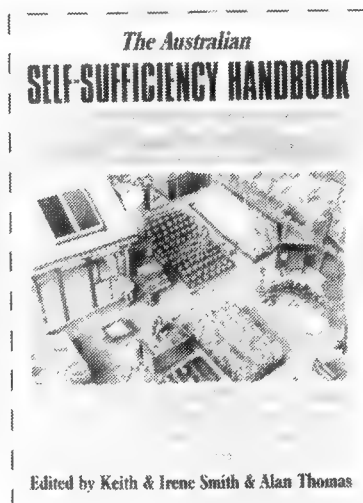
nourishment which comes from hard, physical work can never be underestimated. So whether you're in the bush or the city, you can vastly enrich your life by learning and using the practical skills outlined among the pages of *The Australian Self-Sufficiency Handbook*.

The book is available from *Earth Garden* (see page 64 to order) — we think it will become a classic text — not just to have on the bookshelf, but to have — dog-eared — out in the yard as well.

The Book Of Kites **by Paul & Helene Morgan** **Published by** **Angus & Robertson,** **\$24.95, RRP.**

It is unusual to find a practical book with such a large format presented in such magnificent colour. A grand book indeed! This book is a complete guide to choosing, making and flying kites. No guide would be complete without a brief history which, in this case, is beautifully presented and explains that the story of kites begins in the Far East where they were flown some 2,500 years ago.

Paul and Helene Morgan have taken their hobby of kite-making to an extreme. They now run a small business designing and manufacturing kites. In fact they have set up a shop of their own called 'Sky Bums', dedicated to selling high quality, high performance kites. Their enthusiasm runs throughout this book. *The Book Of Kites* includes a catalogue of kites, flying kites and of course



making kites, all in great detail. It should be noted that although this is an English publication a supplier's list for Australia is printed. This book is perfect for teenagers and adults alike.

The Green Pages

**Published by Turni Press,
\$1.95, RRP.**

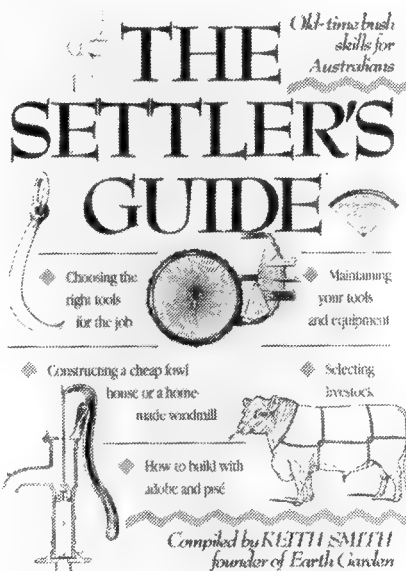
The Green Pages (as advertised in *Earth Garden*) has been put together by Klaus and Cornelia Turni. They want to create an Australian "Green Pages" which will help those looking for a directory to environmentally friendly, and healthy, products and services. It has become increasingly important that people have readily available access to pro-environment products and services. *The Green Pages* undoubtedly offers this, in a simple straightforward way. *The Green Pages* is well indexed, and includes such classifications as building, in and around the house, through to ethical investment, organisations and associations. It contains an unbelievable amount of information from all over Australia for the small price of \$1.95. If you wish to have your business listed in *The Green Pages* contact: Turni Press, PO Box 666, Norwood, SA, 6067. Perhaps one day people will turn to their *Green Pages* (printed on 100% recycled paper) instead of the traditional *Yellow Pages*.

The Settler's Guide

**'Old time bush skills for
Australians'**

**Compiled by Keith Smith,
co-founder of Earth Garden.
Published by Lothian Books,
176 pages, large format
paperback.**

**\$26.95, posted from Earth
Garden (see page 64 to order).**
The Settler's Guide was first published in 1981, reprinted in '83 and now the revised edition has been released by Lothian Books. What a good thing too! The information is both historically fascinating and relevant for anybody taking the practical approach and returning to a self-reliant lifestyle.



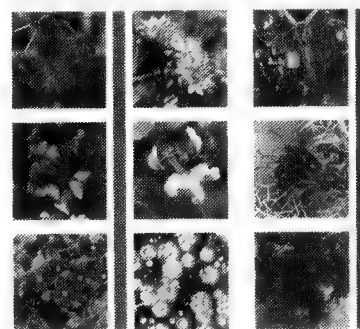
Keith Smith knows we can learn a lot from the past. This book is based on a selection of articles compiled from the *Agricultural Gazette of New South Wales*. These articles were printed almost 100 years ago and you can be sure they are just as relevant now. Depression, unemployment and drought forced many to find the economical and practical way to set up small farms and housing. Today's economic hard times are influencing people in much the same way. As Keith puts it: "The bias (in the book) is towards practical articles which will help today's 'new' settlers — those people who are leaving the cities to attempt a fresh start at a more self-reliant life in the bush". *The Settler's Guide* offers old timers' information on the basic subjects — clearing and fencing, building, tools, livestock, farming and gardening. It is packed with detailed illustrations and photographs. This edition includes a chapter on 'Building with adobe and pisé'. The old photographs in this chapter are fascinating. For basic survival skills this book is a must and *Earth Garden* highly recommends it. *The Settler's Guide* is faithful to the core philosophies of *Earth Garden*. The book sold out through *Earth Garden* in its first two printings, and we kept getting inquiries for several years afterwards. You can order *The Settler's Guide* from *Earth Garden* — see page 64 for details.

**Colour Guide To The
Wildflowers Of Central and
Western Australia
by Denise Greig
Published by
Angus & Robertson,
\$24.95 RRP.**

This is a very practical 'guide' book, small enough to live in your back pack or glove box. Identifying a flower is made simple because the plants are grouped according to their colour. White and cream, yellow, pink, orange and red, purple and blue, green and 'unusually' coloured.

Each flower is labelled with its botanical name, common name and regions where it is found. The author gives a brief description including climatic preferences and where the flower grows best in the domestic garden. A chapter on photographing wildflowers offers simple advice. In fact, the colour and detail of the photographs are what makes this book so effective as a user's manual. Around 300 species are represented, which is a small portion of the thousands of flowering plants in Central and Western Australia. However it is a good cross section of what you're likely to encounter. Descriptions are in simple language and there is an index for both botanical and common names. This book is truly worth every cent!

COLOUR GUIDE
to the
WILDFLOWERS
of Central and Western Australia



DENISE GREIG

**Health And Beauty
by Lorna Horrocks
Published by
Angus & Robertson,
\$19.95 RRP.**

Health And Beauty is a very attractive book indeed, pulling together modern knowledge and natural ingredients to create natural beauty care. Many of the herbal ingredients would be in an Earth Gardener's herb garden. Bear in mind that today we are confronted by an enormous range of 'beauty care' products produced by huge companies. These products are heavily advertised and overpackaged. Often animals are subjected to horrific tests in the name of beauty. This book offers a wonderful alternative for both men and women. Over 140 recipes are given for cleansers, fresheners, toners, face masks, lotions, creams, shampoos and conditioners. All are free from artificial perfumes, preservatives and colours.

Throughout the book there are many quotations, from a range of

books dating back to ancient Greek writings. I would strongly recommend this book to anyone interested in either herbalism or simply beauty care.

**Secrets Of The Soil
by Peter Tompkins and
Christopher Bird
Published by Arkana
(a Penguin imprint),
\$24.95 RRP.**

**Reviewed by
Stephanie Falconer.**

Secrets of the Soil is a brilliant investigation into biodynamic (BD) and other gentle cures for our chemical-loaded soils. It explores the fascinating homoeopathic and cosmic foundations of these agricultural methods.

The authors relate many personal stories of the success of biodynamics, including that of Alex Podolinsky in Australia, whose influence has helped to produce over a million acres of BD farming land. The irony here is that although the Australian Government is aware of the success of BD farming, it chooses to remain silent — even though there is a huge demand for poison-free BD rice and other grain overseas.

The book's introduction covers the rising influence of chemical companies after the dicta of Justus von Liebig — the father of chemical farming. Von Liebig realised his mistake too late. Tompkins and Bird also discuss some of the many other warriors who have fought for our Mother Earth, such as Sir Albert Howard, J I Rodale and Rachel Carson.

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The book's authors travel to different parts of America and Australia seeking practical evidence of successful chemical-free agriculture by those who have sought the aid of the cosmos and elementals. The same cosmic principles of Steiner's biodynamics keep surfacing in these other apparently unrelated disciplines.

The book covers many topics. It pays homage to the microcosmic activity of microbes and earthworms in the soil. It explains that rock dust may yet save dying forests. The Greenhouse Effect and its two possible outcomes are also investigated.

The appendices are books in themselves. *Light from the East* leads to the story of the theosophists. There is a short biography of Rudolf Steiner (with an explanation of anthroposophy) and a powerful chapter on planetary powers. Appendix F is a 'How To And Where To' of BD preparations and composts.

You can contact the Biodynamic Association for the practical, hands-

on teaching which is available at regular field days and workshops. Write to: Biodynamic Farming & Gardening Association at PO Box 533, Armidale, NSW, 2350; phone (067) 727 421, or Melbourne (03) 844 4478. This book is essential reading for anyone interested in the processes of life on Earth.

**Food Combining For Vegetarians
by Jackie Le Tissier
Published by Thorson,
\$10.95, RRP.**

Jackie Le Tissier has taken the Hay diet and adapted it especially for vegetarians. Dr Hay (1866-1940) concluded that freedom from disease lies not in relieving symptoms, but in treating the underlying causes. In simple terms, by separating starch from protein and increasing the quantity of alkaline foods in your daily diet, you can expect to increase your health and vitality, and improve your resistance to illness as well as

control any weight problems.

Jackie has written this book from her own experience, and I would strongly recommend it to any vegetarian wishing to learn about food preparation and combinations.

Other new books received by Earth Garden in the past three months:

Practical craft ideas from your garden, by Janet Taylor (Lothian, Australian Garden Series, \$12.95 RRP).

The Change, by Germaine Greer (Hamish Hamilton, \$19.95 RRP).

I Once Met A Man, by RM Williams (Angus & Robertson, \$14.95 RRP).

On Flowers, by K Kleinman & S Slavin (Angus & Robertson, \$24.95 RRP).

Taste Sensations, by H Clucas & A Lindsay (Viking O'Neil, \$24.99 RRP).

Easy Knits For Kids (Bay Books, \$8.95 RRP).

The New Zealand Bed & Breakfast Book, Compiled by J & J Thomas, (Moonshine Press, 27 Marine Drive, Mahina Bay, Eastbourne, New Zealand, \$12.95 RRP).

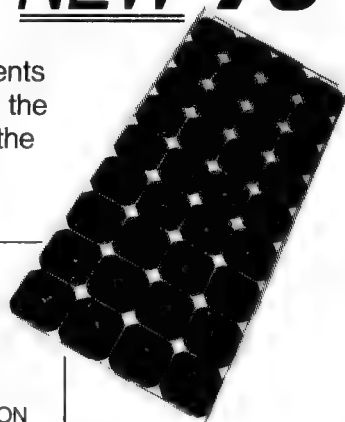
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EARTH GARDEN UNCLASSIFIEDS



Unclassifieds are 40 cents per word, prepaid. The deadline for the next issue is 7 August.

'FOCUS ON HERBS' — a quarterly herb magazine covering herbal medicine, ethnobotany, research, craft, cookery, cultivation, folklore and more. Specialist writers from Australia and overseas. Cost \$16 p a. 'Focus on Herbs', PO Box 203, Launceston, Tasmania, 7250.

65 PLANS for homes of mudbrick, rammed earth, stone and pole frame construction (145 pages). Mail \$42.00 for *The Earth Builder's Construction Detail and Plan Catalogue* to John Barton, Building Designer, 31 Sharp Street, Newtown, Geelong, Victoria, 3220, or phone (052) 224249 for fixed quote to draw or document your home plan.

TREE SEEDS — Southern European Oaks — Algerian, Holm, Cork etc. American oaks — Mesa, red etc. Black Walnut, Tree Lucerne, Honey Locust, etc. \$2 per packet and postage. For catalogue send SSAE H & A Gravestein, c/- Wyndham PO, NSW, 2550.

EARTHWORMS — \$15.00 per 1000 including full information on breeding and delivery Australia wide. Phone (09) 4544357 or post cheques to Mr Gary Barker, 5 Kite Court, High Wycombe, WA, 6057.

GOURD, FUN GARDENING! Specialising in, books, magazines, fresh and dry gourds for craft, birdhouses, musical instruments, seeds and people's needs. For information send a stamp to The Australian Gourd Club, 187 George St, EG East Maitland, NSW, 2323. Phone (049) 336624.

PERMACULTURE DESIGN COURSE — For Temperate Regions — Chiltern, NE Victoria, 27 September to 11 October. Tutors: Vries & Hugh Gravestein. Learn from those who have done it — on a PC demonstration property. Contact: V Gravestein, RMB 1130, Chiltern, 3683. Phone (057) 261 596.

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PERMACULTURE DESIGN CERTIFICATE COURSE — Far South Coast, NSW. Specific to cool temperate systems, strategies and species. A two week residential course. 11 to 25 April, 14 to 28 November. Tutors — Hugh Gravestein, Andrew Sheridan, Vries Gravestein. Register now as numbers are limited. Enquiries: H. Gravestein, c/- Wyndham PO, NSW, 2550. Phone (064) 942014.

LOOKING FOR MORE MEANING IN YOUR LIFE? Women are invited to stay at our rural property one week during 13 to 27 July. Explore meditation, crafts. Rest and refreshment. Food, accommodation free. Write to Sister Helen, Sisters of the Church (Anglican), 42 Wirrang Drive, Dondingalong, via Kempsey, NSW, 2440.

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A STEINER HIGH SCHOOL? A teacher/parent manual by Alan Whitehead. Includes curriculum overview. Send \$10 to Golden Beetle Books, Box 481, Mullumbimby, NSW, 2482. Or write for our titles list.

YOGA — Beginner's integral course by correspondence. Books-tapes Arya Bhakta School Of Yoga. PO Box 283, Wanneroo, WA, 6065.

SKILLS FOR SUSTAINABILITY. Practical skills and information to •Find a property •Develop it in an ecologically sensitive way •Make a positive contribution to Earth restoration. Tutors: Frances L and and Max O Lindegger, Directors of Ecological Solutions, an International Permaculture design and teaching consultancy. Venue: a private ecological subdivision. Dates: 1992, November 1 to 14; 1993, January 10 to 23; May 2 to 15; July 11 to 24; November 7 to 20. Information: Jeff Michaels, Box 52, Crystal Waters, MS 16, Maleny, Queensland, 4552. Phone (074) 944676.

PERMACULTURE DESIGN COURSE FOR TEMPERATE REGIONS. Time: Saturday 26 September to Monday 5 October 1992. Place: Chiltern — on "Willuna". Tutors: Vries and Hugh Gravestein. For enquiries phone (057) 261596. Learn in our garden from those who have done it.

THE AUSTRALIAN WORD. A resource manual by Alan Whitehead for teachers of English, and anyone who loves language: its Body, Soul and Spirit. Send \$10 to Golden Beetle Books, Box 481, Mullumbimby, NSW, 2482. Or write for our titles list.

PERMACULTURE. Designing for sustainability and self reliance. Courses emphasising Sydney/Hawkesbury regions. 5 to 6 September (urban) and 26 to 27 September rural permaculture. Accommodation, meals, tuition for \$115 (\$95 concession) per course. Information: phone Michael Wilson (045) 732169, 16 Longleat Rd, Kurmond, NSW, 2757.

TOBACCOSEED, organically grown, (Virginian) cultivation and curing notes are included. Send \$5 to Lyn O'Brien, c/- Post Office, Barmah, Victoria, 3639.

BUILD A GREENHOUSE/SHADEHOUSE, using PVC. Grow anything year-round. Size 14 feet x 16 feet expandable. Plans and full instructions. \$18 plus \$2 p & p. From A Partners Co, PO Box 10, Stepney, SA, 5069.

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KANGAROO ISLAND decade-old pine trees only for sale. Environment investment; good value appreciation. Contact Cerise Whittle — (054) 705154.

COMPANION PLANTING CHART. An attractive guide to companion gardening. Covering over 90 vegetables, herbs and fruit, including plants as insect repellents. Sow When Chart. Suggested sowing times for 100 vegetables, herbs and flowers in four Australian climatic zones. \$5.00 each plus \$2.50 p & p (up to five copies). Plum Products, RMB 2907(E), Bruthen, Victoria, 3885.

RAINFOREST SEEDS BUY OR SELL. Send one stamp and \$10 or \$7 concession for our quarterly newsletter that has pages of information on rainforest ecosystems. \$2.50 for a sample. The rainforest Seed Collective, PMB Bellingen, NSW, 2454.

SET OF EARTH GARDEN MAGAZINES. Editions 1 to 48 (April 1976 through to November 1985). Best offer. Please telephone Steve on: (054) 722 888.

CROP CIRCLES! Most comprehensive selection of books and videos on crop circle phenomena. Also clearing house for sightings in Aust. and NZ. PCCS (affiliated CPR, UK). PO Box 1146, Mountain Gate, Victoria, 3156. (03) 762 3929.

NORTH QUEENSLAND SUBSCRIBERS: our new business has expanded. We are now located at "Power Bill's", 94 Boundary Street, Railway Estate, Townsville (in the old mower shop, opposite the National). We provide an agency for Rainbow Power Company (Nimbin) and Solar Edwards Hot Water (Perth). Now we are able to demonstrate the practical use of renewable energy right in the heart of the CBD! Feel free to drop in for a chat. Inquiries are on us and the work we do is at reasonable rates with a professional flourish. Bill Moran, PO Box 795 Hermit Park, Queensland, 4812. Phone 727062. Open 9 am to 6 pm weekdays and 8 am to 12:30 pm Saturday (DST).

PERMACULTURE DESIGN COURSE FOR TEMPERATE REGIONS. Time: Saturday 26 September to Monday 5 October 1992. Place: Chiltern — on "Willuna". Tutors: Vries and Hugh Gravestien. For enquiries phone (057) 261596. Learn in our garden from those who have done it.

THE HOMEBUILT DYNAMO (1987) by Alfred T Forbes ISBN 0-9597749-0-4. Hard Cover. Size 30 x 21 cm. Detailed low-tech (no electrical knowledge required) plans for building a 1 kw low-revving brushless DC generator for wind, water, or steam power. A 150 w foot-powered version with battery storage system is also described for the energetic person with modest electricity requirements. Reviewed in EG 60 and December 15th, 1989 issue of *Model Engineer*. Price \$85.00 post paid, airmail, from Todd-Forbes Publishing, Dept D7, Box 3919, Auckland, New Zealand.



LAND LINES are for people buying, selling, seeking or sharing houses and land. It is your responsibility to check all deals. We charge a rate of 40 cents per word (prepaid) for a listing of any desired length. All LAND LINES should include your name and address (phone number is optional). LAND LINES for the September issue should arrive at RMB 427 Trentham, 3458, by 7 August.

HOME FOR SALE, RED CLIFFS, VICTORIA. Comfortable older style 3 bedroom home in quiet area close to beautiful Murray River and scenic bush reserve. 5 km from country town, close to primary school and school bus. Established garden. \$59,000. Phone (050) 241986 for details.

TWO WATERS FARM CO-OPERATIVE. Tabulam, NSW. 1,100 acres, all lots approximately 100 acres, each with freehold title. The most unspoilt land in NSW. \$45,000 to \$49,000. 50 percent finance assured. Send for details to PO Box H141, Harris Park, NSW, 2150, or phone (02) 630 2487.

EAST GIPPSLAND, VICTORIA. Shares in co-operative. 150 acres, half forest, permanent river, orchards, national parks, school 9 km, friendly community, beautiful area. Share includes housesite and 3 acres for personal use. Common land managed co-operatively. Children welcome. Currently three households. \$22,000 ONO. Contact: Antoinette Shanahan, RSD Goongerah, 3888. Phone (051) 540 143.

HOUSE FOR SALE, NORTH EAST NSW. Bellingen River frontage, deep swimming holes, canoeing. 35 minutes to the beach. 1/4 share of 65 acres. Ranging from cleared river flats to timbered ridges and rainforest. Council approved Multiple Occupancy. Sealed road frontage. 5 BR, spacious home on 2 acres, fully fenced. Unique hexagonal design with central skylight, large open plan kitchen, fridge, plus LP gas and slow combustion stoves, lounge with slow combustion heater, polished hardwood floors, study, slate/stone bathroom, large verandahs. Vegie garden plus young orchard of 70 trees, many bearing, 7 years biodynamic. Ample water supply. Large separate carport/workshop/spacious granny flat with verandah and lovely views, children's cubby house, secure chook pen, animal paddock and shelter. Bus to State or Steiner school. \$167,000. Other residential shares also available. Phone (08) 388 9531, (066) 558561 or (02) 817 0392.

BUSH BLOCK, KURRAJONG. 40 acres of beautiful bush at Kurrajong, only 1 hour 15 minutes from Sydney. 25 km out of Windsor, off Blaxland Ridge Rd. Bordered by national park, Crown land and other large bush properties. Fronted by Wheeny Creek (to swim, fish or paint) and a couple of acres of designated wetlands. Lots of birdlife. 5 fenced acres of creek flats, backed by natural bushland with rocky outcrops and caves, and abundant wildflowers in spring. Has its own private creek, pure enough to drink, cascading through ferns and wild orchids. The foundations of an early settlers cottage are still visible amongst the trees. Fabulous views from the higher parts of the property. You can look down on sun-lit clouds in the valley at dawn. Several great spots for a house. Freehold title, can be built on for main or weekend living. \$185,000 ONO for unsurpassed privacy. Call (02) 967 2976.

SOUTH COAST, NSW. Wanted for long term lease. Small sheltered acreage with permanent water and some areas of good soil. Phone (058) 814024 or write to Greg, PO Box 589, Deniliquin, NSW, 2710.

CHEAPEST HOUSE IN TOWN. Neat two bedroom home on big block in small village, in northern NSW. This village boasts a primary school, hospital, sawmill, forestry, churches, CWA, scouts, bowls club, historical society, etc. \$42,000. Phone Irene (07) 824 1603.

YOUR OWN WILDERNESS. A small mountain. 100 acres. Near Tantawangalo forest, south east NSW, half kilometre of river and road frontage. Platypus, fish, birds, wallabies, kangaroos, wombats. \$38,000. Phone (064) 585287.

NIMBIN: 20 acres at the top of a valley. "Exclusive use" of a 1/4 share in Multiple Occupancy property. Large creek, hydro power, rainforest, secluded building site with large shed. \$50,000. Phone (066) 891010 (BH).

FOR SALE, HOUSE IN SOUTH AUSTRALIA. Mudbrick house in beautiful beach township. North Beach, Wallaroo, South Australia. Solar efficient design. Slate tiled open living area. Two very large bedrooms upstairs. 200 metres from beach. Full plans and working drawings available for second stage. \$82,000. Phone (085) 326703.

13 SHARES IN STARLIGHT COMMUNITY. 20 km from Sunshine Coast. Includes 3 bedroom council-approved timber home in forest setting. Alternative power system includes generator, batteries, solar panels, inverter etc; Good swimming dam. \$90,000. Phone (074) 467 611 or write to Sam Bennet, PO Box 68, Yandina, 4561.

"GROWERS PARADISE". 100 fertile sub-tropical secluded acres, northern NSW. Open plan mudbrick and timber house, large verandahs and decking, phone, total solar: 2000 watt inverter, 12 panels. Solar and combustion HWS. Gas stove and fridge, open fire, 6000 gallon tanks. Large slab shed. Multiple Occupancy, all fenced. Heaps of other good homesites, dam, streams, heavy eucalypt rainforest, abundant wildlife. 18 km to Kyogle, close to Nimbin and Lismore. \$115,000. "Fox's", Box 1133, Burleigh Heads, Qld, 4220. Phone (075) 707 536, leave a message and I'll ring back Sundays pm.

MARYBOROUGH, VICTORIA. For sale/to let. 5 acres of land certified by NASAA. Great potential as an organic market garden. Two bedroom mudbrick house. SEC, phone, close by. Greenhouse, tractor. \$85,000 or \$90 pw. (054) 232 687 or (03) 534 1338.

MOUNT MEE, ONE HOUR TO BRISBANE GPO. House on 40 acres, great views, fully fenced, one third cleared paddocks, good stand of blackbutt. 2 dams, pure well with pump, 5000 gallon tank, organic vegie garden, fruit trees, chook runs. Red cedar home, 3 bedrooms, 2 bathrooms, study, family, lounge, dining room, electric kitchen. Tractor and pottery shed. 5 minutes to school or walk to bus. \$275,000 Phone (074) 982156.

ORGANIC FARM PROPOSITION, DUBBO NSW. 10 km from town, on Macquarie River. Beautiful 40 square, 107 year old colonial homestead set in 1 acre of landscaped garden, large inground pool. On 40 acres, with adjoining 74 acres on separate title. Both blocks with irrigation licence, superb rich alluvial soil, no chemicals used for 13 years. Suit any irrigation or dry land enterprise. Cattle, sheep yards, excellent 3-stand shearing shed. House block: \$280,000; 74 acres: \$95,000; or together: \$370,000. Phone the owners on (068) 873186.

GRAFTON AREA. 3 acre share in Multiple Occupancy, 1 bedroom, 2 storey corrugated iron house, large shed, chook yards, small patch of bananas. Dam, generator, \$12,000 deposit, \$250 monthly, \$25,000 full price. Phone (02) 427 7921.

WEETAH, TASMANIA. Comfortable 3 BR home on beautiful 20 acres. Half bush, half paddocks, organic garden, ideal for sustainable lifestyle. Phone (045) 754020.

NORTH COAST, NEW SOUTH WALES. Two shares are available for sale in a 1200 acre property nestling in the upper reaches of the Taylor's Arm Valley. The land itself is a complete ecosystem with intact water catchments feeding secluded valleys and 3 1/2 km of main river frontage. Approximately 100 acres cleared, the balance hardwood and beautiful rainforest. The aim of the community is to create a balance between lifestyle, business and the environment, founded on permaculture principles, to provide freedom and security through the difficult times ahead. Present operations include a plant nursery, carpentry and mechanical workshops, art studio and desktop publishing. We are looking for people who are willing to instigate or participate in craft-based industries, organic farm management and forest care. Selection of shareholders is based on suitability to the aims of the project. One \$50,000 share and one \$20,000 share are still available. A unique opportunity to own and live on a temperate/sub-tropical property. For further details write, fax or telephone the Trustees, Garravembi Community, Willow Bend, Thumb Creek, NSW, 2447. Phone (065) 642219, or fax (065) 642201.

GIPPSLAND SOUTH — 10 MINUTES FROM FOSTER. 56 acres cleared. (Sealed road. School bus route). Creek frontage; adjoining bush reserve. Sheep and chestnuts. (Also fenced area for market garden.) 3 bedroom older style house. Hill top location with stunning 360 degree views including Wilson's Promontory. SEC, Telecom, Coonara heater, etc. Garage, sheds, stockyard. Established garden and fruit trees. \$165,000. (Also sheep \$3000. Tractor and implements \$6000.) Suit full-time or weekends. (2 hours from Melbourne). Contact: Stephen, Going Solar, (03) 328 4123.

EUDLO VALLEY — SUNSHINE COAST HINTERLAND. Queensland, 20 km from Nambour, 3 km from Chenrezig Buddhist Institute, 20 minutes from the coast, 5 minutes to school, train and Eudlo township. 6,250 square metre secluded elevated block, mostly cleared with treed gully in bushland setting. The block is set back from the road. It is fully fenced, has range views and underground power to the boundary. \$79,000. Phone Ross or Tilly on (074) 459897.

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UNIQUE PROPERTY FOR SALE. 69 acre, unspoiled bush block in Porongurups, surrounded by 'A' class reserve. 30 minutes from Albany, WA, but total seclusion. Slopes gently to Kalgan River. Many species of rare flora including native orchids. Level areas cleared for home and studio. 12,000 gallon concrete tank and large soak. \$79,000. Phone John or Cheryl on (098) 543 035.

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70 KM WEST OF INGHAM, NORTH QLD. Two bedroom cottage on 53 acres, mains electricity and solar, phone, fully fenced. School 3.5 km away. Two large sheds, tractor with slasher and bucket. Permanent spring, creek frontage, 2 ponds — one stocked with barramundi. Volcanic soil, some fruit and nut trees. Beautiful setting in undulating country. \$120,000 or nearest offer. Phone (077) 775160 for more information.

FOR SALE — UNIQUE BYFIELD RAINFOREST MOUNTAIN BLOCK. A 1/8th share of 284 acre block is on offer for \$45,000. Keppel Island views, three million gallon dam, two storey liveable shed, lychees, bananas, avocados, citrus — hurry. For more details contact: Alan Davey, 9 Rutherford St, Rockhampton, Queensland.

FOUR ACRES OF NATIVE GARDEN, ADELAIDE HILLS. 35 minutes from the city. Fruit trees, vegetables, permanent creek, irrigation system. Brick three bedroom home plus granny flat and rumpus room. \$190,000. Lenswood area, phone (08) 389 8394 for details.

FREEHOLD 21 ACRE RETREAT bordering unique Lillian Rock. 26 miles from Murwillumbah/Lismore, 350 degree views. Fenced/crossfenced, volcanic soil, undulating, forest, wildlife environment, dam, road, enormous house-site with carport/studio/verandah. Tanks for 23,400 gallons rain-water (gravity feed). There is an open shed, chook pen, cabin, gardens and fruit trees. Paulownia-Tree-Propagation. Power and phone are available. State and Steiner schools are nearby. The property is priced for a quick sale at: \$80,000. For more information, write to: Hella Holland, Salkeld Rd, Blue Knob, NSW, 2480.

WEEKENDER ON 51 ACRES. 20.6 hectares of freehold half share of 102 acres of forest, five acres cleared, two boundaries bordering Ballengarra State Forest. Simple dwelling of iron and pole construction. Gravity feed water from dams to house and gardens. There is a new 5 Kva electric start generator, solar power and solar hot water. Established garden, orchards, chookyard, sheds and composting toilet. 45 minutes (50 kilometres) to Port Macquarie, Wauchope and Kempsey. This place is a quiet, private island in the forest, on good dark soil with a permanent creek on the property. The property is realistically priced at \$80,000 (firm). Phone Trevor (065) 822 196.

25 KM FROM DORRIGO TOWNSHIP, NORTHERN NEW SOUTH WALES. 90 picturesque acres. Two-thirds of the land is cleared, one-third is still rainforest. There are three creeks, and one dam. 40 foot x 25 foot steel-framed and aluminium-clad shed, pot belly stove, sink, shower and toilet. Please telephone (03) 265 6553 for more details.

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Jackie French's ORGANIC CONTROL OF COMMON WEEDS - \$15.95	\$
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